

**Imperial College
London**



**SEE MORE
ACHIEVE MORE
BE MORE**

IMPERIAL HORIZONS
VISION 2020-2025

IMPERIAL HORIZONS

OUR VISION IS TO EMPOWER
STUDENTS TO SEE MORE,
ACHIEVE MORE AND BE MORE.



More than ever before, students in higher education will apply what they learn in university to professional careers that don't yet exist. To become global leaders and valuable citizens of today and tomorrow, our students must learn to be independent critical thinkers, to be societally and ethically responsible, and to have a broad understanding of the world. Imperial students will gain skills that prepare them to succeed in the modern world and that equip them to be future leaders. Imperial's Learning and Teaching Strategy¹ recognises that the best education goes beyond traditional disciplinary boundaries.

This is where Imperial Horizons fits in. Our pioneering approach to a broad, cross-disciplinary education enriches students' abilities with new ways of thinking, and with new subjects – taking them beyond the confines of their chosen discipline.

INSPIRING

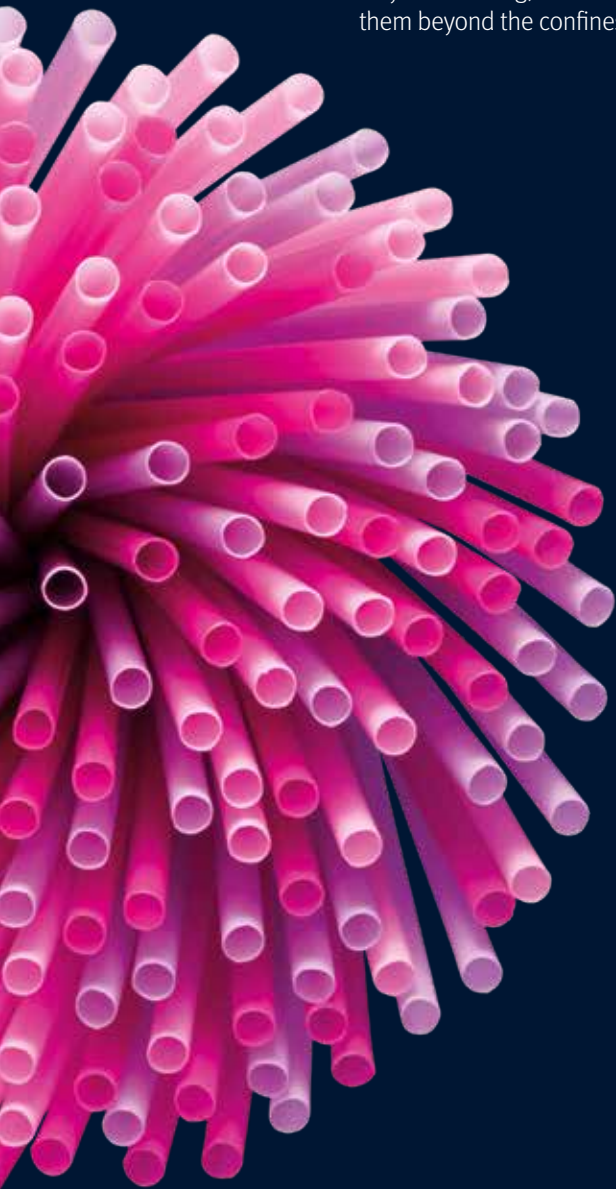
Life's a rich adventure. We inspire students, equipping them with the skills and confidence to seek out and realise opportunities in a changing world. To approach challenges with curiosity, critical thinking and creativity. To innovatively apply their skills to tackling complex, real-world problems.

DARING

We challenge and push boundaries. We empower our students to try new things and to take risks. We do this to enable our students to expand their horizons; to work effectively in multi-cultural, international teams and across disciplinary boundaries; to understand and value different cultures and perspectives; and to feel comfortable with intercultural communication.

INVIGORATING

We put students at the heart of what we do. We help them make the most of their time at Imperial College London and enrich the technical skills of their discipline with humanities-based subjects. We enable our students to develop into independent learners with high self-efficacy, and to display a strong sense of personal and professional identity.





The humanities have (provided) me with a different outlook on life. (They) helped me to flex my creative muscles – they quickly became my most interesting subjects and enriched my life greatly!

ARTHUR FOX,
COMPUTING, NOW AT SONY MUSIC ENTERTAINMENT

IMPERIAL GRADUATES WANT BRILLIANT CAREERS

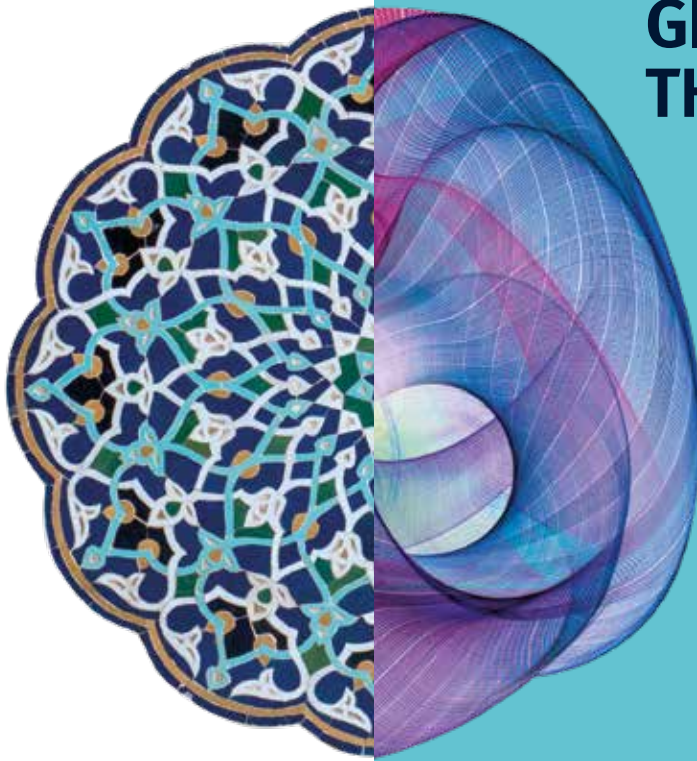
WE RECOGNISE THAT THOSE WHO REACH THE TOP NEED BROAD SKILLS

Some years ago, Google carried out project “Oxygen”² – a comprehensive analysis of how they used top talent in their company. “Oxygen” shocked everyone. It found that of the eight most important skills in Google, technical expertise came last. The company had previously focussed on recruiting graduates excelling in STEM (science, technology, engineering and mathematics). But “Oxygen” found all of the seven top skills were interpersonal and communication skills. Skills like “being a good coach,” “communicating and listening well,” “possessing insights into others,” “knowing how to include different values and points of view.”

The World Economic Forum in their project “The New Vision for Education”³ echoes these findings. They identified the top ten skills necessary for success in the 21st century, including “critical thinking and problem solving,” “creativity,” “communication and collaboration.”

In the UK, the Wakeham Review⁴ in 2016 looked at STEM graduate employability. It found that students often struggle in the job market because of “a lack of awareness and understanding about how the skills and knowledge they have developed during their degrees relate and map onto the jobs market.” Employers want more ‘soft’ or ‘work ready’ skills. Skills required in the robot- and AI-proof-jobs of tomorrow.

It is precisely these skills we address in the Imperial Horizons programme.



GIVING STEMS THEIR ROOTS

WHAT DOES HORIZONS ACCOMPLISH AT IMPERIAL?

Imperial has boasted a humanities programme for over 70 years, foreshadowing CP Snow's "two cultures" argument. Snow bemoaned that "the intellectual life of the whole of western society" is split into two cultures – the Sciences and the Humanities – and that this split is a major hindrance to solving the world's problems. Imperial Horizons was conceived in 2012 with the dual aim of providing humanities-focused learning opportunities to improve and increase the transferable skills of our graduates, and to enrich our students' learning experience by offering subjects they love studying.

Working in partnership with the other elements of an Imperial education, the Horizons programme helps to ensure that Imperial College London graduates are not just well educated in their chosen field, but are also independent learners and critical thinkers, have an ability to manage complex ideas, and, most importantly, to communicate them effectively. In consequence, Imperial graduates know their personal impact and how it can contribute most effectively in the workplace. They have honed workplace leadership and team skills, have an understanding of risk, failure, uncertainty and success. They have proficiency in project and time management, and in networking and negotiating skills.

We aim for both intellectual curiosity and enjoyment, and skills development. Imperial Horizons offers an intrinsically cross-disciplinary, cross-College complementary learning opportunity. Our motto is: "STEMs need roots."

No wonder the Imperial Horizons programme has proved extremely popular among undergraduates, as evidenced by consistently high student numbers and outstanding feedback.



The most desirable traits of top employees and entrepreneurs are ones of individuality: initiative, passion and innovation. Creative Writing has taught me to think in different points of view, to go deep into psyches. These are essential skills which are not taught in the curriculum.

KHAI WEI,
LIFE SCIENCES

GIVING “GEN Z” WHAT THEY NEED



HORIZONS’ THREE FIELDS OF STUDY

Nearly all our students are members of “Gen Z”. Raised in the aftermath of the 2008 financial crisis, they are more reflective and contemplative, they want more tangible and stable outcomes, but also want to make a difference. Imperial Horizons helps them achieve their goals with modules in three different fields of study:

Humanities and Social Sciences – These modules equip students both for their future careers and their wider contributions to society. This includes developing a professional edge in communication, leadership, negotiation, persuasion, team-working, problem-solving, and organisational awareness. They offer a broad range of subjects – such as anthropology, law, politics and psychology. Additionally, there are modules on entrepreneurship and skills for employability.

Languages – These modules have a very important role in equipping students with the ability to communicate in a foreign language, and to develop their inter-cultural competence. Major European and internationally strategic languages are offered. Different entry points enable students to try a new language from scratch or to progress to near-native competence beyond their current level in a foreign language.

Change Makers – This field offers modules that allow students to research, analyse and problem solve a range of global issues, and uses our award-winning “live, love, learn” approach. Students are challenged to apply learning from their core degree subjects to complex real-world situations. Working in mixed discipline groups allows students to share perspectives and expertise, developing a collaborative approach to learning and working. It is an inclusive and diverse approach that encourages a sense of community and boosts students’ self-efficacy.



Oral communication is becoming increasingly important. However, this skill is greatly underrepresented in most science courses. The workshops impacted my interpersonal skills and ability to present confidently. (It benefited me) especially with regard to employability.

STEFAN GROSSFURTHNER,
LIFE SCIENCES



INTERACTIVE AND DIGITAL LEARNING

IMPERIAL HORIZONS USES DIGITAL TECHNOLOGIES AND CUTTING-EDGE TEACHING METHODS

Students' feedback emphasises their enjoyment of Horizons modules. They relish the opportunity to study subjects in classes with students from other departments. Students enjoy learning in a small-group setting, with communication as one of their core activities. We ensure that Imperial Horizons provides an environment for individualised attention from the lecturer, which stimulates intellectual and personal growth by confronting our students with themes and topics that stretch them. We also provide the opportunity for cross-disciplinary thinking, and often use cutting-edge teaching methods (such as team-based learning, active learning, peer instruction, peer marking, etc.). We see an important role for the full use of digital technology.

Interactive learning is central to all three areas of Imperial Horizons:

Humanities and Social Sciences –

Modules foster active learning outside the classroom. For example, in the 'Psychology of Performance' module students experience first-hand the psychological and physiological aspects of delivering a performance in the Royal College of Music's Performance Simulator. Games are used to foster active engagement with concepts on some of our modules.

Languages – A flexible, student-focused and practice-based approach to learning and teaching is at the heart of our language modules. Inside and outside the classroom, we combine a variety of tools and tasks tailored to students' needs as well as to their different learning styles.

In class, students work in pairs and groups, on all four core language skills, receiving individual feedback throughout.

Change Makers – All our modules prioritise process over content. We encourage students to incorporate a range of ways of looking at the world, to use a wide palette of tools and techniques in their work and an array of different media to communicate their ideas.





IMPERIAL HORIZONS IS LEADING A GLOBAL TREND

ALL THE WORLD'S TOP UNIVERSITIES NOW PRIORITISE COMMUNICATION AND LEADERSHIP SKILLS.

It is important to put Imperial Horizons in a global context. All of the world's top STEM universities, including **Massachusetts Institute of Technology (MIT)**, **Stanford**, **ETH Zurich** and **Tokyo Institute of Technology**, have recognized that knowledge of a single discipline is not enough. Success in life also depends on communication and leadership skills, intellectual agility and the ability to thrive in unfamiliar scenarios.

'Thrive in unfamiliar scenarios'

In several respects, Imperial College London is ahead of the competition in the higher education sector, particularly in Europe and Asia (where a large portion of our student population comes from). We recognise the wider needs of modern graduates, and integrate a whole range of different skill development opportunities into academically rigorous modules. This means that students can freely pick modules that genuinely interest and inspire them, and begin to address their own skill development. We succeed in encouraging 'personhood' – integrating skills and learning into students' sense of identity, and providing them with the tools to bring their



whole life experience and individuality to bear on their core studies.

This success can only further expand. Imperial Horizons is part of the new I-Explore⁵ offer at Imperial, which fully integrates co-curricular, cross-disciplinary modules into all our undergraduate study programmes. We hope and anticipate that this will enable Imperial to further leapfrog the competition. With its fully-integrated module structure and years of experience in delivering award-winning communication and humanities education across all STEM disciplines, Imperial Horizons is now part of daily life at Imperial for most undergraduates. And at Imperial, we have broadened the very concept of STEM to become “STEMM,” adding the additional “M” to welcome our colleagues and students from the Faculty of Medicine into the fold.

We have thousands of alumni who can, and do, attest to the lasting value of their Imperial Horizons learning.



Communication is so important once you've graduated: writing reports, giving presentations, even simple stuff like writing a clear, succinct cover letter or email; these skills have been invaluable since graduating.

CASSANDRA YONG,
MATHEMATICS, NOW AT BOSTON CONSULTING GROUP



PRAISE FROM STUDENTS ACROSS HORIZONS MODULES:

“Excellent. Covers a variety of topics – a great opportunity to perfect not only skills needed for languages, but an important professional skill too.”

LANGUAGES
FRENCH LEVEL 4

GERMAN LEVEL 3

“I liked the “speed dating” type exercises because they were a good way to practise conversational German and also get to know the class better.”

JAPANESE LEVEL 1

“Love this course! Very interesting and useful.”

SPANISH LEVEL 5

“A very enjoyable module. It was the perfect learning experience that acted as an escape from my main degree.”

MANDARIN LEVEL 2

“Great learning a language from a native speaker; managed to learn a good amount of Chinese without having to put too much effort into it.”

MUSIC TECHNOLOGY

“Definitely the best module I have ever taken at Imperial.”

HISTORY OF SCIENCE,
TECHNOLOGY AND INDUSTRY

“Can’t overstate how much I’ve enjoyed this module, it’s the reason I look forward to Thursdays so thank you!”

DEVELOPMENT OF BUSINESS
AND ECONOMIC IDEAS

“Highlight of my week.”

HOW DO YOU KNOW?

“The interactive sessions with practical demonstrations of phenomena are educational fun.”

MAKING AND PROTOTYPING
FOR RESEARCH AND PRODUCTS

“This has been the best course I have ever done, with the most engaging lecturer.”

SUSTAINABLE ME

“This module is essential in the current situation and had a profound influence on me. It leads to large amounts of reflection.”



LESSONS FROM HISTORY

“Really glad I took this course, learnt a lot of transferable skills. Would highly recommend to anyone considering a Horizons option, great break from really technical subjects whilst still being stimulating.”

“I also really like how we can guide our own learning. This course is amazing and it is great that Imperial provides such courses through Horizons.”

PROBLEMS IN MORAL PHILOSOPHY

“The course by far exceeded my expectations. It has definitely changed my perspective of the world.”

“A brilliant course which is very stimulating, (with) a discussion-based dynamic in the class. I would often come in on Mondays just for Horizons!”

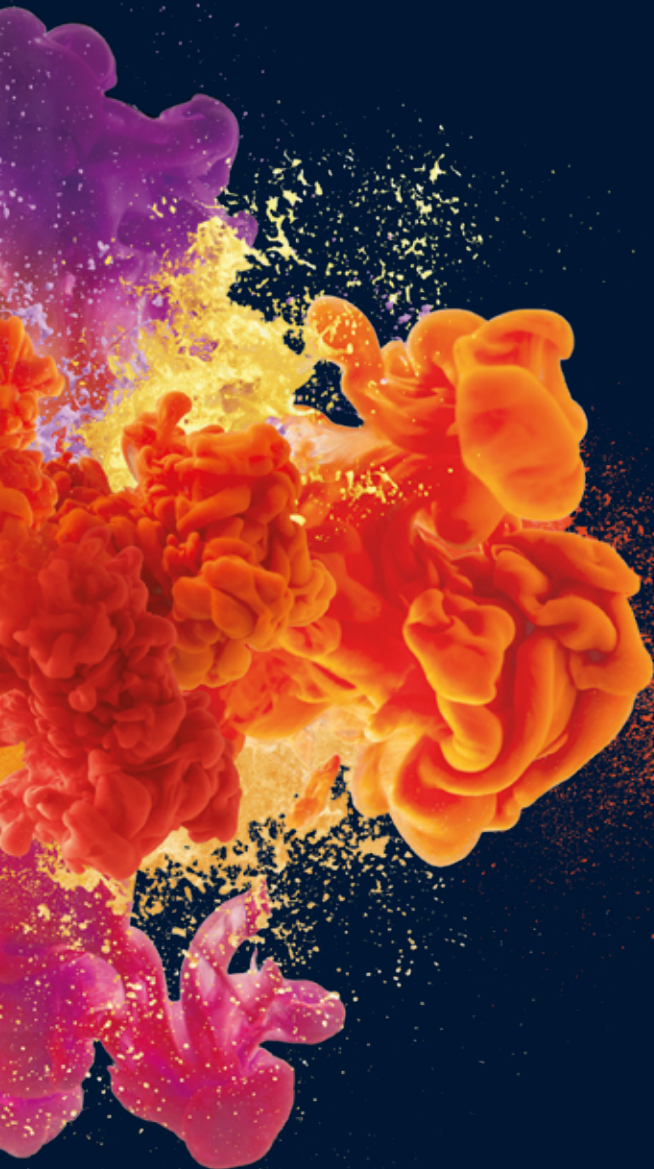
“I can’t think of anything to improve the course apart from wishing it went on for another term!”

CONTEMPORARY PHILOSOPHY

“I loved this module, it was a starting point to many interesting thoughts and discussions outside of the course as well.”

PROFESSIONAL SKILLS AND EMPLOYABILITY

“One of the best and most helpful modules one could take to improve in the work field (in terms of interviews, CV, or any other similar tools).”



IMPERIAL HORIZONS GLITTERING PRIZES



IMPERIAL HORIZONS STUDENTS ARE PRIZE WINNERS.

Our students often win awards in open competition with students from other universities on full-time humanities and language degrees. For example, many have won the prestigious Daiwa Scholarship, a unique 19-month programme of language study, work placement and homestay in Japan. Horizons students excel at the national-level Japanese Speech Contest for University Students.

Horizons teams have reached the national finals several times in the Engineers Without Borders Design for People Challenge where students investigate and design for a remote, impoverished community. For example, Imperial students' flooring design to combat seasonal flood damage has been implemented throughout a village in rural Vietnam.



'There is scope for very able students to shine'

Work produced by students on the Creative Writing module regularly wins external accolades, including the prestigious HG Wells Prize (2015) and the Royal Society Student science writing prize (2018).



I've received specific compliments on technical summaries, which I attribute to having spent so much time writing. Programmers (should) be sent on writing courses; two different yet complementary forms of creative problem solving.

STUART HOLLAND,
ELECTRONIC AND ELECTRICAL ENGINEERING, NOW AT MICROSOFT RARE





EXTERNAL EXAMINERS CONSISTENTLY PRAISE THE QUALITY AND RIGOUR OF IMPERIAL HORIZONS

“There was general praise for the rigorous examination and marking procedures and the high standards achieved by the majority of students given the number of contact hours. The assessment process and methods were described as a “rigorous and fair measure of student achievement” against the intended outcomes of the programmes.”

“(Imperial Horizons) is very current. In essence it encourages students to locate and view their scientific studies through more humanities and social science lenses.”



EVER BROADENING HORIZONS

OUR VISION FOR THE NEXT FIVE YEARS

The future of Imperial Horizons will be led by a careful balance of considerations. Foremost amongst these will be the commitment to ensuring our staff and students work across disciplines to understand and change the world. Our world-class education reacts and responds to the times: for example, we recently started offering modules on 'Understanding Our Digital World' and 'Creative Digital Platforms'. We will be led by Imperial's Academic Strategy⁵ and continue to be a prominent voice in the safety of new technologies, the legislation and policy necessary to achieve this, and in the debate around the societal impact and ethics of Artificial Intelligence.

Continuing consultation with the student body will ensure we respond to student demand (this recently led us to introduce a British Sign Language module). Our students are at the heart of what we do, and we work with students as partners.

This will be complemented by simultaneously addressing the needs of future employers. Employers are asking for skills across disciplines in intercultural communication, collaborative group work, problem solving and the ability to deal with uncertainty.

Imperial Horizons will help deliver these skills. We will continue to work closely with other departments and services across Imperial – and particularly with the I-Explore⁶ programme – to exploit synergies and diversify our offering further. We now have a well-tested process for developing and delivering new, cross-disciplinary modules. We have successful collaborations with the Business School, the advanced Hackspace, the Careers Service and the Societal Engagement team. We are also exploring opportunities for new modules with Outreach, the Centre for Academic English, the Centre for Environmental Policy and the Imperial Enterprise Lab.

'Change the world'

Finally, our staff and students will work closely with external communities to ensure that our work is relevant, timely, and accessible. We have existing external collaboration with Engineers Without Borders, and are exploring opportunities to work with the London School of Economics and the V&A Research Institute.

Through these and other efforts, Imperial Horizons will continue to ensure that I-Explore⁶ is the finest cross-disciplinary programme for 'STEMM' undergraduates globally.

CENTRE FOR LANGUAGES, CULTURE AND COMMUNICATION (CLCC)

We deliver excellent teaching and scholarship in the fields of humanities, languages and science communication. We run a thriving programme of evening classes and lunchtime learning in the arts, humanities, languages and sciences open to all.

Teaching excellence and a dedication to an outstanding student experience are at the heart of everything we do. Whilst Imperial is an institution focused on science, technology, engineering, mathematics and medicine (STEMM), we recognize the importance of a well-rounded education to equip students with the skills and knowledge necessary to thrive in the fast-changing world of tomorrow. At the Centre for Languages, Culture and Communication we provide STEMMs with roots.

Imperial Horizons is CLCC's flagship programme for undergraduate students. Offering innovative modules in humanities, social sciences, languages and global challenges designed to stimulate personal, professional and intellectual growth, and place undergraduate degrees in a wider context.

For more information visit:

<https://www.imperial.ac.uk/clcc>


FURTHER READING

1. See – Imperial's Learning and Teaching Strategy: <https://www.imperial.ac.uk/learning-and-teaching-strategy/>
2. See – David A. Garvin, Alison Berkley Wagonfeld, and Liz Kind. "Google's Project Oxygen: Do Managers Matter?" Harvard Business School Case 313-110, April 2013. (Revised October 2013.)
3. See – The World Economic Forum Geneva 2015 – "The New Vision for Education – Unlocking the Potential of Technology"
4. See – (William) Wakeham review of STEM degree provision and graduate employability. Published: [London, England]: Department for Business, Innovation and Skills and Higher Education Funding Council for England, 2016
5. See – Imperial's Academic Strategy: <https://www.imperial.ac.uk/academic-strategy>
6. See – I-Explore Programme: <https://www.imperial.ac.uk/study/ug/i-explore/>

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For more information visit;
<https://www.imperial.ac.uk/horizons>

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