## World University Rankings 2024



0

in partnership with **ELSEVIER** 







# INVENT THE FUTURE

King Abdulaziz University's academic credentials are unmatched in the Arab world, and you can play a leading role in the institution's ongoing pursuit of excellence.

Research is the lifeblood of the higher education space. That's why independent, cutting-edge research is at the heart of everything King Abdulaziz University does.

To help facilitate Saudi Arabia's Vision 2030 programme, KAU is aiming to be ranked among the world's top 100 universities, driven by a culture of innovation and invention.

To achieve this the university is committed to the creation of specialised course programmes that support the world's economic needs – both today and in the future.

By taking a leading role in community service through the application of modern technologies and robust academic standards, KAU is pursuing social outcomes for the benefit of individuals locally and around the world.

Join KAU and transform your ideas into impact through one of its research programmes.

Visit www.KAU.edu.sa to find out how you can become a part of KAU















Since their founding year in 2004, the World University Rankings have become increasingly sophisticated and now use an array of metrics to give a robust picture of global university performance







*Times Higher Education* World University Rankings Rankings editors: Ellie Bothwell and Pola Lem To raise your university's global profile with *THE*, please contact branding@timeshighereducation.com To unlock the data behind *THE*'s rankings, and access a range of analytical and benchmarking tools, contact data@timeshighereducation.com

## World University Rankings

Two decades of analysis China sails closer to the top	7
Ups and downs The global picture is changing	10
UC Davis' racial pioneer Gary May on attracting minority students	16
Crème de la crème The top 200 universities	21
<b>20/20 vision</b> A journey over two decades of rankings	34
The top 201-1,000	39
<b>Objective lesson</b> How to remain neutral in a polarised world	78
Calm in a crisis Even horrors can create opportunities	82
The evolution of the metrics How the rankings measures have changed	86
Methodology	88
Measuring research quality	92
The research environment	99
An overview of teaching	107
Industry partners	114
International players	121
Shape of rankings to come	128
Dates for your diary	130





At the University of Bristol we bring everything that we are to deliver research with impact. We employ science, data and logic. We also bring energy, creativity and our unique rebellious spirit. From fighting social injustice to pioneering peaceful use of nuclear, we believe that when people come together with passion and determination, anything is possible.



Discover how our academics bring life to research. www.bristol.ac.uk/research





INC

Valeska, Professor of **Smart Nanomaterials** (Mechanical Engineering)

research\* effect, b

effect, o ation fron legislation / Eu laws. 2. a la legis latio th legislative // ink laws: 0

lexislative



## Sathyabama **Institute of Science** and **Technology**

YABAI

Sathyabama Institute of Science and Technology is one of the top Higher Educational Institutions in India with a high reputation for teaching and research. It is a Deemed to be University, established under Sec.3 of the UGC Act, 1956, which has been Accredited by the National Accreditation and Assessment Council with "A ++" Grade.



### **Key Benefits**

- Inclusive Institution
- State of the Art Infrastructure with world class research facilities
- > 18 Centres of Excellence
- 15 Research centres
- > 75+programmes offered
- Admirable Academic Ambience
- Multi-Disciplinary University
- Diverse student and Faculty population
- 20000+ students on campus
- Research centres in thrust areas of Science and Technology working towards sustainable development goals
- Strong International connect
- **Robust Innovation Eco System**



Sathyabama offers 49 Bachelor's Programmes and 25 Master's Programmes in Engineering, Technology, Law, Dental Science, Pharmacy, Nursing, Arts, Science and Humanities and Management. Sathyabama has a good presence in rankings and ratings at the National and International levels. Sathyabama has been consistently ranked among India's top 50 Universities.

The Institution is ranked in 1201+ position by Times Higher Education World University Rankings 2023 and with respect to Times Higher Education Asia University Rankings, 2023 it is ranked in 501+ position. Recognizing the contribution of Sathyabama towards Sustainable Development Goals of United Nation's Agenda 2030, Times Higher Education has ranked Sathyabama in good positions in the Times Higher Education Impact Rankings, 2022.

Sathyabama Institute of Science and Technology is located in Chennai, the capital city of Tamil Nadu, a City of cultural, economic, and historical importance. With more than 20000 students on campus, Sathyabama is a home for students from all parts of the world. It provides an excellent student support system with a comfortable and joyful learning environment for local and international students.

Sathyabama is a research-intensive Institution with advanced laboratories and research facilities. Sathyabama has undertaken various sponsored and collaborative R&D projects funded by National and International Organizations. The Institution has state-of-the-art infrastructure and world-class facilities. Centres of Excellence are established in association with leading industries. Sathyabama Institute of Science and Technology has alliances with leading universities and research establishments at the national and international levels. Sathyabama has a diverse student and faculty population and a multicultural learning environment. The robust innovation ecosystem in Sathyabama supports numerous start-ups. The Institution has an excellent placement record, and more than 90% of the students are placed in core companies and multi-national companies.

Visit us to study at a dream destination: www.sathyabama.ac.in

For Details, Contact: +91 99400 58263 99401 68007 99400 69538



# Two decades of thoughtful analysis

## The World University Rankings have developed to reflect the changing higher education landscape

Welcome to the 20th edition of the *Times Higher Education* World University Rankings. Our first table in 2004 included only 200 institutions from 29 territories. This year, we have ranked 1,904 institutions across 108 territories, with a further 769 universities listed as reporters.

Our original methodology was simple, based on only five performance indicators. Our new WUR 3.0 methodology, introduced this year, has 18 performance indicators across five pillars, making it our most robust and comprehensive assessment of global higher education to date.

We still capture the teaching and research reputations of universities, through our international, invitation-only academic reputation survey, to calculate two of the metrics. But this has expanded too. In 2004, our reputation data was drawn from 1,300 responses from 88 countries; this year, we're using over 68,400 responses from 166 countries.

Overall, *THE* has worked with more than 411,000 data values, while our bibliometric data supplier Elsevier

#### **COUNTRIES/REGIONS REPRESENTED IN THE TOP 200**

Country/region	Number of institutions in top 200	Top institution	Rank
United States	56	Stanford University	2
United Kingdom	25	University of Oxford	1
Germany	21	Technical University of Munich	=30
China	13	Tsinghua University	12
Australia	11	University of Melbourne	37
Netherlands	11	Delft University of Technology	48
Canada	8	University of Toronto	21
Switzerland	7	ETH Zurich	11
South Korea	6	Seoul National University	62
Sweden	6	Karolinska Institute	50
France	5	Paris Sciences et Lettres – PSL Research University Paris	40
Hong Kong	5	University of Hong Kong	35
Japan	5	The University of Tokyo	29
Belgium	4	KU Leuven	45
Denmark	3	University of Copenhagen	=103
Italy	3	University of Bologna	=155
Singapore	2	National University of Singapore	19
Austria	1	University of Vienna	=119
Finland	1	University of Helsinki	121
Ireland	1	Trinity College Dublin	134
Масао	1	University of Macau	=193
New Zealand	1	University of Auckland	=150
Norway	1	University of Oslo	127
Russian Federation	1	Lomonosov Moscow State University	=95
South Africa	1	University of Cape Town	167
Spain	1	University of Barcelona	=152
Taiwan	1	National Taiwan University (NTU)	=152

has analysed 16.5 million research papers and 134 million citations.

In short, the numbers and growth of the rankings over the past two decades are significant. But data only tells part of the story.

That's why, alongside our tables and charts, we have extensive analysis from our journalists, commentary from academics and experts and insights from leaders of some of the top universities in Australia, Hong Kong, Mexico, New Zealand, Nigeria, Sweden and the US. All relate to at least one of the five areas the World University Rankings measure - the teaching environment, the research environment, research quality, knowledge transfer and internationalisation - and reflect the fact that the higher education sector has, like our rankings, become more global and more inclusive over the past two decades.

Gary May, chancellor of the University of California, Davis – the only black leader in the UC system – shares his advice on attracting minority students, as well as his view of the challenges to progress, while the Vanderbilt University chancellor Daniel Diermeier defends his philosophy of "institutional neutrality" in an increasingly polarised US political landscape.

Cheryl de la Rey, vice-chancellor of the University of Canterbury, reveals what it's like to lead a university after local tragedies – in her institution's case, an earthquake and two mosque shootings.

Folasade Ogunsola, vicechancellor of the University of Lagos, discusses her country's battle with brain drain and the search for creative ways to combat funding shortfalls – both issues facing universities all over the world. Meanwhile, David Garza, president of Monterrey Institute of Technology, explains how his institution is hiring international scholars in a bid to make Mexico a top choice for foreign academic talent.

It's been fascinating to observe the trends in global higher education over the past 20 years. We look forward to providing data and analysis for the next 20 and beyond.



**Ellie Bothwell** Editor, *Times Higher Education* World University Rankings

*THE* has worked with more than 411,000 data values, while our bibliometric data supplier Elsevier has analysed 16.5 million research papers and 134 million citations

### SPONSORED CONTENT

# RECRUITING FOR RESEARCH EXCELLENCE AND SOCIAL IMPACT

Universities need the brightest minds if they want to maximise research impact. City University of Hong Kong has launched a pair of ambitious recruitment and personnel development schemes to attract the best global talent to Hong Kong and develop the next generation of elite researchers and excellent teachers

I n an increasingly competitive global market for academic talent, successful recruitment and career development strategies are essential for universities with ambitions of enhancing their international prestige and social impact. City University of Hong Kong (CityU) prides itself on the dynamism of its research environment and ranks highly for output. It has now launched a pair of ambitious recruitment initiatives – the Distinguished Visiting Professors Scheme (DVPS) and the Presidential Assistant Professors Scheme (PAPS) – to widen its pool of global academic talent and boost its international profile.

The two programmes are the brainchildren of CityU president Freddy Boey and are closely related. The PAPS offers a competitive salary and research start-up package, as well as flexibility over impactful research



"CityU has been doing great in terms of research output and collaborations"

Wen Jung Li, vice-president of talent and international strategy output, career support and accelerated tenure to assistant professors. The DVPS invites prestigious researchers from the world's best universities and research institutes to Hong Kong to conduct collaborative research projects with CityU faculty. Wen Jung Li, vice-president of talent and international strategy at CityU, describes the scheme as "an ingenious way" of increasing the university's international collaborations while allowing young researchers to learn from a global network.

"CityU has been doing great in terms of research output and collaborations with institutions outside Hong Kong. We are really proud of that," Li says. "However, our collaborators have in the past mainly been from mainland China. Over 50 per cent of our collaborations are currently with mainland institutions. However, we want to extend these opportunities to South-east Asia, Central Asia, the Middle East, Africa, South America, North America, Europe, Australia, New Zealand, South Korea and so forth. We want to be truly global. We want to allow our students, postdoctoral fellows, assistant professors – or even more established faculty – to jointly conduct research with eminent researchers outside Hong Kong and outside mainland China."

The DVPS offers flexible terms to visiting professors, with funding from CityU. Their stay in Hong Kong could be a few weeks or many months. Once the partnership is established, distinguished visiting professors and their CityU



research partners are expected to jointly publish papers or obtain impactful international patents within two years. Li says there has already been considerable interest from academics worldwide, and the feedback from CityU faculty members has been overwhelmingly positive. Department heads see the potential for establishing international networks with like-minded institutions. As for the PAPS, it is designed to give CityU an edge when competing with other institutions in Hong Kong and the Greater Bay Area for global research and educational talent. "This scheme is really to improve our salary and research start-up package to be highly competitive in Asia, and to create a sustainable research environment for these younger talents," says Li.

Having some of the world's best minds on campus is going to change the university's culture. The collaboration with the DVPS scholars will raise standards and help young researchers develop their knowledge and skills, exposing PhD students and postdoctoral fellows to global perspectives and expanding their career pathways both in Greater China and abroad. It is hoped that the crosscultural perspectives will help CityU's young scholars to develop different styles in authoring research papers or creating socially impactful intellectual property, widening the scope of their research impact and productivity. CityU has a number of key performance indicators in place to judge the success of the initiatives, and the number of prestigious journals published annually is among them. But it also hopes to see some tangible benefits in the real world when these research projects are translated into products that can be commercialised.

"I think the number one thing is that we get recognition on the world stage saying that our research environment for young faculty members is as good as any from a top 20 university in the world," Li says. "The other aspect is that we don't want the research results to be just about publications. We want them to translate their research into tangible entities that will improve global communities in the long term. As long as we see our output and translational work improving, we will keep putting money into the schemes because this is important for the growth of our university and Hong Kong."

CityU is looking for assistant professors who hold similar ambitions. The criteria for selecting young talent might vary but typically they will have a strong international research background, and perhaps some Asian cultural



Far left: A student works in the Optoelectronics, Electronics, Power, Nanotechnology and Biosystems Laboratory Above, left: A researcher in the State Key Laboratory of Terahertz and Millimeter Waves Above, right: A

researcher in the Neural Interface Research Laboratory knowledge or experience. "The criteria differ across subject areas. For sciences, citation is more important. For arts, we measure the broader impact," says CityU provost and deputy president Chun-Sing Lee. "CityU provides a very good environment in which to nurture the next generation, both in terms of infrastructure and expertise."

For Li, an ideal candidate could be someone who has graduated from a top university in Asia, who goes abroad, say to one of the leading European or North American universities, with a few years of postgraduate experience. "That opens up their international perspective. They have been trained by the best academics in the world. Those are the candidates we want," Li says.

CityU encourages multidisciplinary approaches to research and emboldens faculty members to carry out impactful projects to improve global societies. Its research efforts are animated by a desire to make a difference and to offer direct responses to the challenges facing 21st-century society. Many of these responses will be technologically driven, especially as Hong Kong modernises its service, manufacturing and financial sectors. CityU is committed to funding these responses, setting aside HKD 500 million (£50 million) to fund start-ups as part of its flagship innovation and entrepreneurship programme, HK Tech 300. It is committed to boosting innovation and social impact, and there is a strong belief on campus that these new recruitment and career development schemes can help the university achieve these goals.

"For some young researchers, the success of their research is determined by whether they can translate their research into novel products, into something impactful," Li says. "So, if we can match a young, talented assistant professor with a distinguished visiting scholar, we can create the potential for real world-class impact at CityU."

### To find out more about CityU's recruitment schemes, scan the QR code







# The crests and troughs of global currents

## As China sails closer to the top, North America has revived and Oceania's international outlook has dipped. Patrick Jack picks out key rankings trends

A fter years of disruption and havoc caused by the Covid-19 pandemic, 2023 has so far signified a return to normal for much of the global higher education sector.

But in the *Times Higher Education* World University Rankings, nothing is ever stagnant – with fluctuations in scores revealing emerging trends, rising powers and potential challenges.

As the results of the 20th edition of the rankings are announced, we explore some of the underlying trends behind the headlines and consider what they reveal about higher education across the world today. While significant methodological changes this year mean that it is difficult to make direct yearon-year comparisons of the results, overarching insights can be drawn from the data.

**China edges closer to the top 10** At first glance, the top of the list shows little change from last year - the University of Oxford retains the number one position, while the US occupies seven of the top 10 spots.

But on closer inspection, the upper echelon of the World University Rankings reveals that China's best institutions are inching closer than ever to entering the top 10 – Tsinghua University and Peking University have both risen a few places to sit in 12th and 14th positions, respectively.

China now has 13 universities in the top 200 – up from seven in 2020 – with each of them improving their ranking significantly.

The question has never been would Chinese universities crack the top 10 but rather when, according to Denis Simon, a China expert previously affiliated with the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill.

Simon describes the rise of China as one of the momentous events of the 21st century and says that it should be no surprise that its higher education system continues to improve.

"Some people have assumed that the expansion of political education in the curriculum would damage the potential development of these universities, but that does not seem to be happening," he says.

"The progress...in Chinese universities has built upon the learning that has occurred from international engagements in higher education cooperation."

The number of Chinese institutions in the top 400 of the World University Rankings has doubled from just 15 in 2021 to 30 this year.

This is mirrored by continued declines in the number of UK and US institutions in the top 200 (by four and three institutions, respectively, since 2021).

Ming Cheng, professor of higher education at the Sheffield Institute of Education at Sheffield Hallam

Progress in Chinese universities has built upon the learning that has occurred from international engagements in higher education cooperation



University, says that although the US and the UK still lead the university rankings, their "relative power is waning".

"Perhaps universities in these two countries could consider learning about the good practices from China and to appreciate different cultures and ideologies a bit more," she says.

"This trend also suggests a shift of knowledge economy power from the West to the East. It will potentially encourage more international students to study in China in the future."

Cheng says the big improvements in Chinese universities' ranking positions can be linked to their increased familiarity with the rankings metrics, the government's generous funding to develop the sector, and the sector's commitment to internationalisation, educational reforms and research innovation.

Chinese universities boosted their average scores in the teaching and research quality pillars, among other areas.

While it might be easy to portray

China's rise as inexorable, Cheng cautions that many financial and geopolitical reasons could yet stymie its ascent.

Nevertheless, China is on some measures steaming ahead. Its median research quality score – which includes newly introduced metrics such as research strength, research excellence and research influence, in addition to citation impact – has improved by 12 percentage points.

The improving picture reflects the country's huge investment in raising the quality of higher education to support its shift towards a more innovation-driven economy, says Simon.

However, he warns, although China's best institutions are very strong, the drop in quality is very sharp outside the top 25 – unlike in the US, where students can get a world-class education at around 100 institutions.

"China has to be very careful about [not] creating a bifurcated higher education system – with a few elite universities and a much larger group of so-so institutions," he says.

"Chinese officials must invest in faculty, infrastructure, libraries across the board, to ensure the differentials that currently exist can be ameliorated."

Andrew Mertha, George and Sadie Hyman professor of China studies at Johns Hopkins University, notes that China's rise is related to the quality of its STEM programmes, while the social sciences are full of world-class scholars who are "hopelessly tied up with political considerations that undermine academic freedom".

And he adds that some combination of the quality of education and the student pool begins to weaken as one moves from undergraduate to postgraduate education in China.

Mertha, the inaugural director of the Johns Hopkins School of Advanced International Studies China Research Center, says Chinese universities will improve further if more bright graduates are permitted to move laterally from the civil service into academia – a shift he says is starting to happen.

#### North America revives after fiveyear stagnation

Rajika Bhandari, principal of Rajika Bhandari Advisors, an international education research and strategy firm, says countries such as China and India are building and strengthening their institutions and research enterprises to become world-class and globally competitive.

At the same time, the tertiary landscape remains dominated by the higher education sectors of anglophone countries such as the US.

"It is not a zero-sum game: it is entirely possible for US institutions to continue to occupy top spots in rankings while also seeing excellent institutions emerge from other world regions."

After five years of no improvement, the average overall score for North America has risen this year. The average score for the top five universities in the US has also improved, following a few years of stability – meaning that its best universities remain unmatched.

Linda Wedlin, professor of business studies at Uppsala University, says North American higher education institutions have long provided a global template for higher education, and they continue to do so.

"This position is driven largely by their emphasis on research quality, and the historically strong global reputation for the leading institutions," she says.

But Wedlin adds that "more institutions from other continents are making their way into the rankings...and this is slowly altering the overall image of the global higher education field, reflecting both individual institutional strivings and larger strategies".

North American universities have improved their average scores across all five pillars of the World University Rankings, but their strongest rise has been in the newly revised industry pillar, while they have boosted their international scores by more than any other continent. The industry pillar now includes a metric on how often



It is not a zero-sum game: it is possible for US institutions to continue to occupy top spots in rankings while also seeing excellent institutions emerge from other regions If there was ever a moment to be looking at Indian higher education, it is now a university's research is cited in patents.

Bhandari, who is also a senior adviser at the Presidents' Alliance on Higher Education and Immigration, says the improvements in the industry pillar reflect the strong university-industry partnerships that are the hallmark of many large research universities in the US and Canada, notably ones that have a strong emphasis on science and technology.

"It also reflects the growing relevance of such institutions' research and activities and their applicability to local industry and businesses," she adds.

### Oceania's international score suffers post-Covid dip

Despite North America's revival, Oceania remains the top continent for the fourth year running – with an average score of 55.1 out of 100.

Australia has six universities in the top 100 and 11 in the top 200 – but only one has improved its ranking position on last year.

The largest drop was for the University of Adelaide, which exited the top 100 after falling 23 places.

The average international student metric scores for Australia and New Zealand have both dropped sharply because of a reduction in the proportion of international students in the two countries. Methodology changes to the international outlook pillar have also contributed to New Zealand's decline in this area.

As a result, Oceania is the only continent to record a fall in its average international outlook score.

Gwilym Croucher, associate professor at the Melbourne Centre for the Study of Higher Education, says that although it is difficult to identify exact causes, it is hard to ignore

the potential delayed impact of the pandemic on Australian universities' reputations and operations.

Australia closed its borders to international students for much of 2020 and 2021, which had clear negative reputational effects, and this might be reflected in its rankings performance, he says.

"While after the pandemic many high-ranking Australian universities fared relatively well financially, a general change in their ranking positions may also reflect the disruption to teaching and research caused by extended lockdowns," he adds.

Among the top Australian universities, one common factor identified in their drop is their teaching and research reputation.

Croucher says the teaching reputation decline is perhaps not unexpected, given recent government surveys revealing perceptions of a diminished student experience.

"What has caused a changed reputation for Australian research is harder to see...especially as Australia continues a significant research undertaking given its relatively small population," he adds.

Clare Overmann, head of higher education initiatives at the Institute of International Education (IIE), suggests one way for Australian universities to rebound next year.

"International academic collaboration is a critical aspect of any strategy to enhance global visibility. Australia has always been strong in international partnerships and would do well to continue to build and grow those partnerships in areas such as joint research, and student and faculty mobility," she counsels.

Jennifer Milam, pro vice-chancellor (academic excellence) at Australia's University of Newcastle, says Covid-19 disruption to international travel for research collaboration will likely cause a drop in international co-authorship rates in future editions of the World University Rankings.

"But this will be temporary," she says. "Australia remains deeply committed to solving global problems through research."

#### Asia increases its representation

This latest edition of the World University Rankings features 108 countries/regions, and the number of participating universities has grown to 1,904 (from 1,799 last year), with the bulk of the new additions coming from Asia.

Among the newly ranked institutions, 20 are from India – meaning its participation has increased more than that of any other country in the 2024 rankings.

"If there was ever a moment to be looking at Indian higher education, it is now," says Vivek Mansukhani, director of IIE India.

"High-quality education (especially in engineering and technology), the vast and diverse higher education landscape of over 1,100 universities, 43,000 colleges and 11,000 stand-alone institutions, and the value for money at Indian institutions are just a few of the strengths of Indian higher education."

The country's leading institution – the Indian Institute of Science – has climbed back into the top 250 for the first time since 2017.

However, it is the only university to place among the top 500 – the country's poorest performance since the ranking was expanded to include more than 400 institutions in 2016.

On average, Indian universities suffer a drop of 14 positions in the ranking, which was driven mainly by methodological changes on research quality.

Turkey and Pakistan also add a significant number of institutions this year (14 and 11, respectively), meaning that Asia has increased its lead in terms of overall representation and representation within the top 200.

It is the continent that has grown the most in terms of average overall score – rising from 31 to 35.7. It has also improved its average score in the teaching and research quality pillars more than anywhere else.

"Significant investment in research and attracting top talent continue to be drivers in boosting rankings across Asia," according to Paul Turner, adviser and former director of IIE East Asia.

"Key to maintaining that growth will be the ability for institutions to continue to attract academic and non-academic talent following a Covid-driven exodus in the last couple of years.

"Such underpinnings are vital to ensure that Asian and Western universities can collaborate in meeting climate goals and global challenges."

Meanwhile, after adding 19 new universities, African representation is now almost on a par with South America.

# Shape your future



At the National University of Singapore (NUS), the future isn't just a concept – it's our priority.

Established in 1905, NUS has grown from a modest medical school to one of the top universities in the world. Our interdisciplinary and real-world approach to education, research and entrepreneurship enables change makers to take on complex global challenges and create positive societal impact.

Together, we can shape your future.



SPONSORED CONTENT

# Driving innovation and positive societal impact



## The Hong Kong Polytechnic University emphasises holistic student development and mission-driven interdisciplinary research to address societal needs

he Hong Kong Polytechnic University (PolyU) seeks to advance industrial and socioeconomic development in Hong Kong and beyond through its educational, research and knowledge transfer initiatives. In an interview with *Times Higher Education*, Jin-Guang Teng, president of PolyU, delves into the university's unique strengths and contributions to society over the years.

## What areas and academic disciplines does PolyU excel in?

Our university enjoys a strong reputation in engineering, technology and related subjects, and we have a long and proud history in these fields. But our expertise doesn't stop there. We're also well-known for our leading position in various distinct disciplines, which are basically unique among the eight publicly funded universities in Hong Kong, such as design, fashion and textiles, hotel and tourism management, rehabilitation sciences and optometry, among others.

By excelling in the provision of disciplines that closely match societal and industrial needs, such as those mentioned above, we've made significant contributions to the socioeconomic development of Hong Kong, mainland China and the world. In fact, over the years, we've guided almost half a million students to graduation – far more than any other university in Hong Kong.

We are glad that our dedication to academic excellence has received international recognition, with the 2023 *Times Higher Education* Young University Rankings placing us fourth worldwide. While we're honoured by this recognition, we remain focused on our core mission: to be an innovative world-class university that directly benefits society.

#### How does the PolyU Academy for Interdisciplinary Research support PolyU's commitment to interdisciplinary research?

Our university is committed to producing research that transcends academia and addresses the world's most pressing challenges, reflected by our university's motto, "To learn and to apply, for the benefit of mankind". It is with this goal in mind that we established the PolyU Academy for Interdisciplinary Research (PAIR), a collaborative research platform that brings together resources and expertise from different disciplines to

### SPONSORED CONTENT

deliver game-changing solutions to key societal issues.

With 16 research institutes and centres, as well as more than 400 senior researchers, PAIR is one of the largest research platforms of its kind in Hong Kong and the Greater Bay Area. PAIR pursues mission-driven interdisciplinary research in areas of socioeconomic importance, such as smart cities, carbon-neutral development, new energy development, artificial intelligence, advanced manufacturing, mental health and deep space exploration. Through PAIR, we aspire to contribute to the United Nations' Sustainable Development Goals, including those related to promoting health and well-being, affordable and clean energy and sustainable cities and communities.

### Can you talk about some notable projects and achievements at PolyU?

We are the only university in Hong Kong that has made significant contributions to national space missions. By leveraging our scientific and technological excellence, we developed a sophisticated space instrument, the Surface Sampling and Packing System for the Chang'e-5 lunar sample-return mission. We also identified possible landing regions with advanced topographic mapping and geomorphological analysis technologies, as well as developed the Mars Landing Surveillance Camera for the Tianwen-1 Mars exploration mission.

In an excellent example of knowledge transfer for the benefit of society, we have helped with the mitigation of myopia, which is a common eye disorder that affects around 9 out of 10 young adults in East Asia. In particular, we have developed myopia control technologies – known as DISC and DIMS – to produce advanced contact and spectacle lenses that can slow the rate of myopia progression by around 60 per cent. The lenses have been commercialised in collaboration with our industry partner Hoya Vision Care and a PolyU academic-led start-up, Vision Science and Technology. Over 16 million pieces have been sold so far.

## How does PolyU contribute to innovation and technology development in Hong Kong and beyond?

One of our core contributions is nurturing a pool of interdisciplinary talents who can be leading players in the emerging innovation and technology industries of Hong Kong, the Greater Bay Area and beyond. To foster these talents, we have strengthened our undergraduate curriculum to include the mandatory components of artificial intelligence and data analytics as well as innovation and entrepreneurship, empowering students with digital and data literacy and the innovative mindset required to thrive in today's Industry 4.0 era.

At the postgraduate level, we are introducing a number of cutting-edge master's degree programmes in areas such as Metaverse technology, microelectronics technology and materials, sustainable technology for carbon neutrality, ESG [environmental, social and governance] and sustainability, and intelligent construction. Last year, we launched a master's degree in blockchain technology. These programmes are designed to develop technologically astute talents, equipping them not only to navigate the current technological landscape but also to shape the future of innovation. The next generation must have a strong passion to employ their professional expertise in a way that makes a positive contribution to society

**Jin-Guang Teng,** president of PolyU

### How does PolyU prepare graduates to meet society's changing needs through holistic education?

A key aspect of our holistic approach to education is that, in addition to giving students professional and academic knowledge, we also nurture a strong sense of social responsibility, integrity and affection for their nation and the global community. Cultivating such values in students is important because, to address the most pressing societal issues, professional expertise alone is not enough. The next generation must have a strong passion to employ their professional expertise in a way that makes a positive contribution to society.

That is why we were the first university in Hong Kong to make service learning a mandatory component of the undergraduate curriculum, allowing students to apply their professional knowledge to support communities in need around the world. Since our service-learning initiative was established in 2012, more than 33,000 PolyU students have provided over 1.33 million hours of service to communities in need in Hong Kong, mainland China and beyond. Our university was proud to receive the Teaching and Learning Strategy of the Year award at the 2022 Times Higher Education Awards Asia for our service-learning initiative.

We also provide ethical leadership education as a compulsory element for undergraduates, through courses such as Tomorrow's Leaders, which focuses on enhancing qualities like morality, integrity and leadership in students.

How does PolyU nurture the next generation of scholars?

In addition to providing world-class postgraduate education through our Graduate School, we are committed to developing the research capabilities and analytical skills of students from the undergraduate level, giving them a solid foundation to develop their careers as successful researchers and scholars who can contribute to societal needs. That is why we introduced the Undergraduate Research and Innovation Scheme (URIS), which aims to strengthen academic curiosity and enquirybased learning among undergraduate students.

> Under the URIS, students are given opportunities and funding to undertake research projects under the guidance and supervision of experienced scholars. They are also granted admission to our virtual College of Undergraduate Researchers and Innovators, which further supports their research training. Since the launch of the URIS in 2021, our university has granted more than HKD 13 million (£1.3 million) to over 410 outstanding undergraduate students to undertake research projects. By cultivating a research mindset early

By cultivating a research mindset early on, we empower students to ask deeper questions, think critically and contribute innovative solutions to real-world problems.

Find out more about PolyU at www.polyu.edu.hk





# An enduring test for a racial pioneer

### Attracting minority students to UC Davis is key for Gary May, but the state ban on race-based admissions is a formidable foe, writes Paul Basken

n the aftermath of the US Supreme Court rejecting race-based considerations in US college admissions, Gary May probably has as good a read as anyone on the seriousness of what US higher education now faces.

May is the only black chancellor in the renowned University of California system, serving since 2017 as head of its northernmost campus, UC Davis. He came to California after three decades at the Georgia Institute of Technology, where he served as dean of the nation's "largest and most diverse" college of engineering.

Yet racial diversity has remained a persistent struggle at UC Davis. With California voters having imposed their own ban on affirmative action in admissions back in 1996, the campus has managed a 4 per cent enrolment of black students – below the 6 per cent level of the statewide population. The reasons for

The reasons for that, May suggests, are complicated. Part of it is the overall strength of the UC system: while UC Davis is rated as highly selective, students competitive enough to be admitted there often find another of the UC's top-ranked campuses at least as attractive.

"Even the ones that we do accept have multiple choices," May (pictured inset) says. "They're probably accepted at every UC that they applied to, as well as [the University of Southern California] and Stanford and other places," he says. "So they have choices and sometimes they have a better, either financial or other, circumstance at one of their other choices, than they would at Davis."

It doesn't help that the city of Davis is fairly small and its surrounding region is rural – generally not attractive features for black students from urban areas. "We have to do a little bit of salesmanship to get students who come from those backgrounds to be interested in Davis," May says.

And there's inertia – the catch-22 in which a low percentage of black students makes it less likely for others to join them. As May explains it, "you want to have an environment where students feel like there's a community – and one of the ways to build community is to have a critical mass." But, he says, "you can't have a community where there's only a handful of people."

On top of that, there's the even more difficult questions about capabilities. UC Davis can admit only 6,000 first-time freshmen each

year out of 110,000 applications, plus another 3,000 transfer students, May notes. "It's just a competitive environment," he says, "and so students with disadvantaged backgrounds have a lot of competition to overcome to be enrolled."

Fortunately, Davis has a good model to emulate: its own medical school. For the past decade, the UC Davis Medical School's assessment of its applicants has included the use of a socioeconomic disadvantage scale that ranks candidates from zero to 99 on a combination of factors that cover family wealth, neighbourhood condition and parental education.

The result is an entering class that – despite the state's 1996 ban on racial preferences in admissions – is 14 per cent black and 30 per cent Hispanic, well exceeding the national average. US medical schools graduated 10 per cent black matriculants and 12 per cent Hispanic matriculants in 2023, according to the Association of American Medical Colleges.

"Those are not explicitly racebased," May says of the measures in the Medical School's socioeconomic disadvantage scale, "but they make pretty good proxies for race, and allow us to have the most diverse medical class in the country that's not at a HBCU [historically black college or university] or a minority-serving institution."

May is now trying to translate that success to the overall UC Davis campus, asking his administrators for a formal assessment of the possibilities and legalities. None of it seems straightforward. In addition to the difficulties of getting minority students to choose UC Davis, the threat remains of more US Supreme Court action on the topic.

In its ruling last month against race-based considerations in college admissions nationwide, the conservative-dominated top US court did hold out the possibility of letting institutions make assessments of "how race affected the applicant's life, so long as that discussion is concretely tied to a quality of character or unique ability that the particular applicant can contribute to the university".

Experts have said it's not clear how the Supreme Court might eventually apply that logic to specific cases, such as that of the UC Davis Medical School, with likely new legal challenges. In the meantime, some of those experts have warned institutions against making statements that acknowledge that their policies do have predictable effects on racial percentages.

That problem aside, May recognises that a key to success with minority enrolment is the retention of those who do get admitted and then accept. UC Davis' struggles to recruit and keep its minority students have been publicly highlighted by Ebony Lewis, the

You want to have an environment where students feel like there's a community – and one of the ways to build community is to have a critical mass



university's chief strategy officer and head of its diversity efforts, who used her 2021 doctoral thesis to chronicle the reasons why black students avoid UC Davis, and has been leading on brainstorming ways to fix that.

One of UC Davis' chief efforts in that direction, May says, is its "Summer Bridge" programme, which gives selected freshmen an eight-week head start on their college careers.

Another is UC Davis' partnerships with minority-serving institutions. Although the campus doesn't have the wealth of nearby HBCUs that May enjoyed at Georgia Tech, it's been creating similar relationships with local community colleges, including a branch of Sacramento City College that's right at UC Davis. "You partner with places where those students are being produced, to do your collaborative programmes and recruiting," May says.

And the concern isn't just for black students, May says. More than a third of the California population is Latino, and yet that racial group represents just under 30 per cent of the student population at UC Davis, he says. Even white students are underrepresented on the campus, owing to the disproportionately large number of ethnic Asian students, he says.

A third strategy for raising minority enrolment at UC Davis, May says, centres on creating a critical mass of minority faculty who can serve as teachers, mentors and role models. High school seniors don't necessarily consider such things when they choose a college. "But when they get there, it becomes a factor," he says.

Although May prefers not to antagonise state lawmakers, he allows that there are ways in which the legislature might be more helpful. California lawmakers prioritise education for the state's residents by requiring that in-state students get at least 82 per cent of the university's slots. May understands the value of such a move, but also acknowledges that it limits his flexibility in expanding black enrolment, preventing him from admitting more qualified out-ofstate minority students.

"They're very unsympathetic to arguments for any of the UCs trying to recruit non-California residents," he says of the state's policymakers. "Those arguments are not really heard."

May argues that it's also possible for the state government to boost financial support aimed at attracting black students, even temporarily, to help build the critical mass he feels would help ensure a longterm gain in black enrolment. But that doesn't seem likely in the current financial circumstances, he acknowledges.

Overall, being the UC campus closest to the state capitol in Sacramento has pros and cons, May believes.

"It's a double-edged sword – it gives us a little more access, but it also gives us a little more scrutiny at the same time," he says. "I've been on both sides of it, but overall, I think on balance it's a good thing." Students with disadvantaged backgrounds have a lot of competition to overcome to be enrolled

# Leveraging technology to pioneer sustainability

From reducing carbon footprints to promoting global partnerships, technology serves as a catalyst for sustainable transformation in campuses across the world

he convergence of technology and sustainability has opened up unprecedented opportunities for positive change. As centres of knowledge and innovation, universities have the potential to be at the forefront of this change and influence the next generation of leaders. Integrating technology into various aspects of higher education has the capability to advance sustainability beyond the campus.

Sustainability presents a complex and diverse set of challenges that demand unique and innovative solutions. "Addressing sustainability challenges requires a balance between global and local solutions," says Marcus Im, rector of Macao Polytechnic University (MPU). The university has embraced the potential of technology in achieving the United Nations' Sustainable Development Goals.

By harnessing artificial intelligence (AI) and other cutting-edge technologies, MPU aims to stimulate interdisciplinary progress in various fields, including healthcare, education, cultural preservation and environmental sustainability. "Our mission is to steer towards a sustainable future with technologies as our driver, fostering interdisciplinary innovation that benefits all," Im says.

MPU takes a multifaceted approach to sustainability, which includes fostering local and global collaborations, as well as emphasising academic excellence, research and innovation within the university. The university recognises that when implementing sustainable initiatives in different regions, it is essential to consider the unique social, cultural and environmental characteristics of each country and work collaboratively with local communities and stakeholders.

MPU focuses on providing quality education that is accessible and affordable to all and conducting impactful research that can improve health and economic conditions around the world. "Our mission is to cultivate a sustainability mindset among diverse age groups, starting with our university students, extending to youth and even reaching older people," Im explains. For MPU, this involves introducing modules about sustainable development into its curricula and launching the Seniors Academy for elderly citizens to promote lifelong learning and inclusive education.

The university has found innovative ways to combine



Our mission is to steer towards a sustainable future with technologies as our driver

Marcus Im, rector of Macao Polytechnic University



information technology with its sustainability efforts. Each year, MPU runs a 3D programming and animation competition, with this year's theme focusing on smart cities and sustainability. The competition was open to everyone in Macao and offered a platform for participants to share their innovative ideas and collaborate on projects that address sustainability challenges.

Incorporating information technology into collaborative research projects is another strategy the university has adopted to amplify the impact of these projects. One successful project is Canarin, a cloud-based realtime environmental monitoring system developed in partnership with the University of Bologna in Italy, the University of Coimbra in Portugal, the Asian Institute of Technology in Thailand and Sorbonne University in France. The system is now in use at the Joanine Library in Coimbra to safeguard world heritage sites. Another notable project is the Centre for Artificial Intelligence Driven Drug Discovery, which combines AI and biomedicine to improve research efficiency and accelerate novel drug design. The centre is expected to accelerate the development of high-tech industries in Macao and the larger pharmaceutical sector in China.

Partnerships and interdisciplinary collaborations are central to MPU's vision of sustainability. Challenges of sustainable development are often complex and require solutions that are not limited to a single discipline. It involves social, economic and environmental considerations, necessitating the integration of knowledge from various fields, Im adds. "Interdisciplinary and collaborative research, combined with technology, can lead to the discovery of innovative solutions and practices that were



previously unexplored, ultimately improving sustainability."

The university is involved in regional collaborations and partnerships with other institutions, such as the United Nations' Higher Education Sustainability Initiative, the Quality Assurance Agency for Higher Education in the UK and the International Network for Quality Assurance Agencies in Higher Education. MPU recently launched the Joint Research Laboratory in Advanced Technologies for Smart Cities in collaboration with the University of Coimbra. The laboratory aims to drive collaborative research between Macao and Portugal in the development of an innovative ecosystem for smart technologies.

The university organises an annual conference in collaboration with the Asia-Pacific Quality Network on modern educational practice and sustainability. In the past, the conference has addressed subjects such as online education and ensuring sustainable quality assurance and educational innovation in the post-pandemic era. This year, the conference aims to bring together researchers and experts from AI and education to explore the latest developments, challenges and opportunities.

Preserving culture plays a crucial role in advancing the sustainable growth of Macao's tourism and economy. Intangible cultural heritage, which has become a distinguished academic field at MPU, plays a vital role in preserving the unique aspects of the region's cultural identity. The Centre of Sino-Western Cultural Studies at the university collaborates with local organisations, compiling documents and oral histories related to Macao's traditions. Their research outcomes have successfully aided local entities in applying for inclusion in national intangible cultural heritage lists. Above left: Ao Ieong U, secretary for social affairs and culture of the Macao government, officiates the inauguration of the MPU-UC Joint Research Laboratory in Advanced Technologies for Smart Cities Above: MPU's campus in Macao

There are renewed efforts worldwide to safeguard languages and dialects to preserve the cultural memories they carry. MPU acts as a bridge to promote Chinese and Portuguese languages and cultures, identifying Macao's unique position as a meeting point between the two. The university has created free learning resources and mobile apps for individuals to learn Chinese and Portuguese, and offers scholarships and Chinese language programmes for lusophone students from Portuguese-speaking countries.

MPU's technological achievements related to languages also include a globally recognised Chinese-Portuguese Neural Network Machine Translation Platform and the Chinese-Portuguese-English Voice Recognition and Simultaneous Interpretation System used by governments and institutions. MPU believes that cultivating bilingual talent in Macao and beyond can foster intercultural communication and strengthen trade and economic relations between China and Portuguese-speaking countries, paving the way for a sustainable future.

## To find out more about Macao Polytechnic University, **visit www.mpu.edu.mo**





澳門理工大學 Universidade Politécnica de Macau Macao Polytechnic University

# PREDICTING DEMENTIA RISKS FOR AN AGEING COMMUNITY

An international team led by Edith Cowan University researchers has discovered an important link between vascular health and late-life dementia.

The long-term study has shown that a simple and widely available bone scan can reveal if people are at increased risk of developing the condition. The scans can reveal calcium build-up in the abdominal aorta – which researchers have previously found is a dependable predictor of cardiovascular disease risks such as heart attack and stroke – is also a reliable marker for developing dementia.

Edith Cowan University in Western Australia is emerging as a leader across a diverse range of research areas.

ECUWORLDCLASS.COM/DEMENTIA



CRICOS PROVIDER NO. 00279B

			<u>5</u>			ıality		il outlook	හ
24	53	5	/reg	061	h h	ab H		iona	scor
k 20	k 20		ntry	hing	earc	earc	ıstry	rnat	all s
Ran	Ran	Inst	Co	Teac	Res	Res	Indt	Inte	0 Vei
1	1	University of Oxford	United Kingdom	96.6	100.0	99.0	98.7	97.5	98.5
2	=3	Stanford University	United States	99.0	97.8	99.6	100.0	87.0	98.0
3	5	Massachusetts Institute of Technology	United States	98.6	96.2	99.7	100.0	93.8	97.9
4	2	Harvard University	United States	97.7	99.9	99.4	84.2	90.8	97.8
5	=3	University of Cambridge	United Kingdom	95.8	100.0	98.0	87.9	97.4	97.5
6	7	Princeton University	United States	96.3	97.9	98.8	95.1	89.1	96.9
7	6	California Institute of Technology	United States	96.6	98.0	95.9	100.0	90.6	96.5
8	10	Imperial College London	United Kingdom	90.9	95.5	98.6	90.9	98.3	95.1
9	8	University of California, Berkeley	United States	87.2	98.8	99.0	99.4	86.8	94.6
10	9	Yale University	United States	94.0	94.9	97.7	86.5	82.4	94.2
11	=11	ETH Zurich	Switzerland	87.6	96.8	95.6	82.9	95.6	93.1
12	16	Tsinghua University	China	95.3	98.1	93.2	99.9	51.7	92.4
13	13	The University of Chicago	United States	89.6	91.2	97.6	93.8	82.3	92.1
14	17	Peking University	China	95.6	97.3	87.2	98.8	70.2	91.8
15	15	Johns Hopkins University	United States	84.4	92.3	97.2	100.0	84.2	91.1
16	14	University of Pennsylvania	United States	87.7	89.7	97.6	97.7	78.8	91.0
17	=11	Columbia University	United States	88.6	89.7	97.4	75.2	86.9	90.9
18	21	University of California, Los Angeles	United States	85.7	91.9	96.4	92.3	74.3	90.1
19	19	National University of Singapore	Singapore	78.8	94.0	95.4	100.0	91.1	90.0
20	20	Cornell University	United States	85.7	88.7	97.6	69.4	86.0	89.5
21	18	University of Toronto	Canada	77.5	94.1	92.8	96.1	90.7	88.6
22	22	UCL	United Kingdom	78.4	86.4	98.6	75.2	97.9	88.1
23	23	University of Michigan-Ann Arbor	United States	84.7	87.4	95.5	80.7	69.0	87.4
24	28	Carnegie Mellon University	United States	75.0	84.6	98.9	87.3	85.5	86.3
25	=26	University of Washington	United States	78.0	83.5	98.2	77.6	73.2	85.3
26	25	Duke University	United States	79.3	76.1	96.2	100.0	74.8	83.9
27	24	New York University	United States	73.2	84.0	94.9	75.4	80.7	83.5
28	=26	Northwestern University	United States	72.3	78.8	97.8	99.7	75.9	83.2
29	39	The University of Tokyo	Japan	93.9	94.2	67.8	100.0	49.7	83.1
=30	29	University of Edinburgh	United Kingdom	70.7	77.5	96.9	71.1	97.0	82.5
=30	30	Technical University of Munich	Germany	69.8	85.1	90.0	100.0	83.1	82.5
32	36	Nanyang Technological University, Singapore	Singapore	66.2	80.9	94.5	99.7	93.3	82.3
33	41	Ecole Polytechnique Fédérale de Lausanne	Switzerland	74.5	73.2	90.3	99.8	95.8	81.4
34	32	University of California, San Diego	United States	66.0	/8.4	97.6	100.0	74.3	81.0
35	31	University of Hong Kong	Hong Kong	65.6	72.3	96.4	95.2	96.8	80.3
30	38	Georgia Institute of Technology	United States	63.4	78.9	94.1	94.6	84.8	80.0
37	34	University of Melbourne	Australia	64.8	76.4	90.1	98.3	92.7	79.2
=38	35	King's College London	United Kingdom	59.8	75.1	97.7	14.2	97.5	79.0
=38	33	LMU MUNICN	Germany	05.3 75.7	70.8	92.2	100.0	76.9	79.0
40	47	Paris Sciences et Lettres - PSL Research University Paris	France	10.1	76.6	83.2 00 E	99.7	81.0 05.0	78.0
41	40	University of Binish Columbia		02.3 60 F	/ 0.0 01 E	90.5	10.1	95.0	78.0
42	40 50	Chardhai liao Tang University	China	76.6	01.0	0J.Z	100.0	60.6	77.7
43	51		China	70.0	02.J 75.2	70.4 92 5	100.0	56.1	77.5
44	10		Belgium	60.1	71.0	03.0	90.0	50.1 70.6	77.0
40	42	London School of Economics and Political Science	United Kingdom	50 F	72 5	91.9	55.0	0/ 1	76.0
40	12	Universität Heidelberg	Germany	67.7	6/ 3	95.4	00.3	76 /	76.7
47	43	Delft University of Technology	Netherlands	66.7	78.0	76.5	100.0	Q2 8	76.2
40 //0	46	McGill Iniversity	Canada	62.3	70.2	88.8	76.1	92.0	76.0
+J 50	40 40	Karolinska Institute	Sweden	58.9	67.9	95.3	96.0	85.7	75.9
00	10			0010	5115	5015	0010	0011	1010



# Mapúa University

Mapúa University is the premier engineering and technological university of the Philippines and a highly recognized educational institution in Asia. In 2022, it has realized its vision of becoming one of the best universities in the world, placing 1501+ in the Times Higher Education (THE) World University Rankings 2023.





The University unceasingly fosters its tradition of excellence in:

engineering

physical and health sciences

architecture and design

information technology

media studies

liberal arts and communication

business and management

Mapúa's undergraduate programs are recognized by various local and international accreditation bodies.





It is the first school in Southeast Asia to obtain accreditation from the United States-based ABET (www.abet.org). To date, the University offers 11 engineering programs accredited by the Engineering Accreditation Commission of ABET, namely, Biological Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Electronics Engineering, Environmental and Sanitary Engineering, Industrial Engineering, Manufacturing Engineering, Materials Science and Engineering, and Mechanical Engineering. It also offers 3 computing programs accredited by the Computing Accreditation Commission of ABET, namely, Computer Science, Information Systems, and Information Technology.

It also has the most engineering programs recognized as Centers of Excellence by the Philippines' Commission on Higher Education (CHED): Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Electronics Engineering, Environmental and Sanitary Engineering, and Mechanical Engineering. Mapúa is also a named Center of Excellence for Information Technology Education with Computer Science, Information Systems, and Information Technology as program offerings in the field.

Championing sustainable engineering and innovations, Mapúa advocates for environment protection and preservation. Mapúa was granted an ISO certification on environmental management systems (ISO 14001:2015), testifying to its dedication to reducing its carbon footprint, and has upgraded its ISO certification on quality management systems (ISO 9001:2008 to 9001:2015), demonstrating its processes and management systems' adherence to international standards. For five straight years, Mapúa has been included in the THE Impact Rankings, a global performance table that evaluates universities based on their alignment with the United Nations' Sustainable Development Goals, since its inception in 2019. Mapúa programs are powered by cutting-edge 21st-century innovations for teaching and learning. Through the Cardinal EDGE (Education in a Digital and Global Environment), Mapúa provides a virtual classroom that can deliver real-time video conferencing across 100 classes involving 2,300 students in a single period.

The University also established Mapúa ÚOx or Ubiquitous Online Experience to offer asynchronous fully online graduate and undergraduate programs that allow students to learn at their own pace and space. It houses a total of 9 fully online master's degree programs in engineering and IT. Mapúa is also the first to offer CHED-approved fully online bachelor's degree programs in engineering and information technology in the Philippines.

The University ensures its graduates are of high caliber, ready to take lead roles in the global arena. To date, it has produced more than 400 topnotchers across 11 Professional Regulation Commission (PRC)-administered licensure examinations since 2000. Its students are also prepared for the world of practice through their exposure to international programs, such as international on-the-job training, international plant visits, summer school, English camps, study abroad programs, and dual-degree programs. Mapúa also exposes them to research, development, and innovation (RDI) initiatives as their training ground to become future enablers of state-of-the-art solutions to problems of industries and communities.

Learn more at: www.mapua.edu.ph



## **HKUST LEADS** THE PACK

\*\*\*\*\*\*\* \*\*\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*

> of Faculty Members

Ranked as World's TOP 2% Scientists

World's No.

by Financial Times in 2022

**No.** 1 in Hong Kong

by 2021 QS World University Overall Ranking

# No. 1

with over 81% of overall assessment submissions including research outputs and impact rated **"World** leading" or "Internationally excellent"



### Top in HK as "World leading" in:

- Built Environment
- Business & Economics
- Electrical & Electronic Engineering
- Physical Science
- Social Sciences

by UGC Research Assessment Exercise 2020 As a young university of just over 30 years, the Hong Kong University of Science and Technology (HKUST) has grown from Hong Kong's first research university to today's world-recognized institution. Committed to addressing the biggest challenges facing humanity, we strive to develop people-oriented solutions in forward-thinking research areas including:

**I&T related subjects** 

28th Mechanical

in the world

engineering

th Computer science & information system

**16th** Materials science

th Electrical &

electronic engineering

- biomedical science and translational medicine •
- material science and future energy
- Al, future computing and electronics •
- innovation for business management •
- environmental science and art tech •
- the humanities and social science

Since the launch of HKUST(Guangzhou) in 2022, our twin campuses in Hong Kong and Guangzhou have been working together to expand our research With booming opportunities in horizons. technological advancement and industry collaboration in the Guangdong-Hong Kong-Macao

Greater Bay Area, we are well positioned to pioneer innovations and bring our education, research, knowledge transfer. and entrepreneurial endeavors to a new level.









1,645 ACTIVE START-UPS

ank 2024	ank 2023	stitution	ountry/region	aching	esearch mvironment	esearch quality	ndustry	iternational outlook	verall score
<u>∝</u> ⊑4	CC	E	O United Kingdom	۳ ۲ د ا		<b>∝</b>			75.0
50	=04	University of Iwalicitester		01.4	07.1	93.1	73.1 01 A	90.0	75.5
52	50 //5	Chinese University of Hong Kong	Hong Kong	50.0	61.5	91.0	01.4 05.0	47.5	75.0 75.4
54	43	Monach University		55.3	67.8	94.7	99.7	91.1	75.2
=55	68	Kvoto University	lanan	85.4	84.3	60.0	100.0	45.7	75.0
=55	67	7heijang University	China	70.2	75.3	78.7	99.0	65.5	75.0
57	74	University of Science and Technology of China	China	74.3	66.3	88.2	95.6	45.4	74.8
58	93	Université Paris-Saclay	France	70.9	66.1	82.4	92.4	78.6	74.4
59	63	University of California, Davis	United States	63.7	67.8	87.2	91.5	78.7	74.1
60	=54	The University of Sydney	Australia	52.6	68.9	92.0	97.7	90.2	73.8
61	60	University of Amsterdam	Netherlands	55.0	63.1	96.7	77.6	93.2	73.6
62	56	Seoul National University	South Korea	74.2	75.3	74.6	100.0	43.7	73.4
63	81	University of Wisconsin-Madison	United States	68.5	67.5	85.5	79.8	62.8	73.3
=64	61	Brown University	United States	69.8	59.6	89.7	69.3	72.1	73.0
=64	58	The Hong Kong University of Science and Technology	Hong Kong	54.0	62.1	92.9	100.0	95.5	73.0
=64	59	Wageningen University & Research	Netherlands	56.4	59.8	93.8	98.8	92.4	73.0
67	62	Australian National University	Australia	55.9	68.0	86.6	82.0	94.8	72.6
68	57	Washington University in St Louis	United States	60.8	57.2	97.5	77.8	72.7	72.3
69	64	University of California, Santa Barbara	United States	47.4	64.7	96.9	99.4	84.0	72.1
70	53	The University of Queensland	Australia	52.9	64.3	89.1	99.8	94.0	72.0
71	=95	Institut Polytechnique de Paris	France	71.0	61.6	70.8	98.8	97.1	71.3
72	69	University of North Carolina at Chapel Hill	United States	63.4	60.3	93.9	75.8	50.9	71.2
73	=95	Nanjing University	China	64.0	61.7	85.3	96.8	61.8	70.9
74	65	University of Southern California	United States	59.2	58.8	92.5	74.4	74.3	70.8
75	90	Sorbonne University	France	64.7	60.8	83.7	69.5	78.8	70.5
76	78	Yonsei University (Seoul campus)	South Korea	68.1	64.3	79.3	99.9	51.8	70.4
77	77	Leiden University	Netherlands	46.0	62.7	93.0	98.1	87.8	70.2
78	=71	Boston University	United States	59.6	54.1	94.3	76.4	74.1	70.1
79	75	University of Groningen	Netherlands	47.5	57.2	94.5	99.9	93.4	70.0
80	=82	University of Zurich	Switzerland	54.8	53.4	91.8	93.7	92.4	69.9
81	76	University of Bristol	United Kingdom	48.7	56.5	97.3	72.3	92.5	69.8
82	=99	City University of Hong Kong	Hong Kong	52.2	52.4	91.1	100.0	98.7	69.3
83	=91	Korea Advanced Institute of Science and Technology (KAIST)	South Korea	67.1	65.8	77.4	100.0	41.6	69.2
84	=71	UNSW Sydney	Australia	47.2	57.4	91.1	98.6	94.5	68.9
85	=101	University of Minnesota	United States	61.0	58.5	87.2	99.8	48.3	68.7
86	127	Purdue University West Lafayette	United States	64.0	65.3	71.8	84.3	76.7	68.5
=87	=82	University of Glasgow	United Kingdom	48.1	51.8	96.8	69.7	96.1	68.2
=87	79	Hong Kong Polytechnic University	Hong Kong	45.7	54.1	94.5	87.4	96.3	68.2
=87	=86	Humboldt University of Berlin	Germany	55.3	63.7	82.8	65.4	79.0	68.2
90	=99	RWTH Aachen University	Germany	54.9	64.8	78.9	100.0	71.2	68.0
91	89	University of Bonn	Germany	51.7	57.7	89.7	82.6	73.8	67.8
=92	=95	University of California, Irvine	United States	47.1	53.8	93.2	96.1	80.9	67.4
=92	98	Vanderbilt University	United States	54.1	48.5	96.0	96.5	62.9	67.4
94	73	Charite – Universitätsmedizin Berlin	Germany	47.5	49.1	97.7	100.0	75.2	67.2
=95	=163	Lomonosov Moscow State University	Russian Federation	87.5	75.2	33.9	91.1	73.8	67.0
=95	=86	University of Tubingen	Germany	49.1	56.5	89.0	99.8	/2.0	67.0
=97	155	NIT RUYAL INSULUE OF LECTIONOSY	Sweden	53.5	57.8	81.0	97.7	82.5	66.9
=97	=108	University Of Southampton	Nothorlanda	48.9	54.4	92.7	13.1	96.5	66.9
=99	δU 110	Chie State University (Main compus)		38.5	54.1	90.9	94.7	90.0	00.7
-99	112	onio State oniversity (want campus)	United States	00.8	52.1	00.4	0.00	07.3	00.7





# TOP 2 Worldwide for 'Quality Education'

SUSTAINABLE Development G ALS

Lingnan University's Commitment to United Nations' Sustainable Development Goals



www.ln.edu.hk

A global leader in Quality Education and High Impact Research

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research ewironment	Research quality	Industry	International outlook	Overall score
101	=108	University of Birmingham	United Kingdom	46.1	49.3	95.5	72.1	95.1	66.6
102	=91	Free University of Berlin	Germany	52.1	59.7	82.5	71.6	82.4	66.5
=103	=114	University of Copenhagen	Denmark	49.2	51.1	91.3	89.5	80.1	66.3
=103	85	McMaster University	Canada	43.8	51.3	93.0	100.0	87.3	66.3
105	=114	University of Sheffield	United Kingdom	48.0	49.5	92.3	77.5	92.0	66.2
=106	=82	Emory University	United States	53.1	45.7	95.5	81.6	69.3	66.1
=106	=119	Lund University	Sweden	46.7	56.6	86.6	99.8	79.8	66.1
=106	=104	University of Warwick	United Kingdom	48.1	52.1	89.0	70.5	96.4	66.1
=109	117	Aarhus University	Denmark	44.9	59.0	86.3	98.7	76.3	65.9
=109	118	University of Alberta	Canada	50.1	55.5	80.9	99.9	90.7	65.9
=111	88	University of Adelaide	Australia	42.4	50.6	92.8	95.0	92.9	65.8
=111	=119	University of Göttingen	Germany	50.0	54.8	90.1	70.8	70.7	65.8
=111	111	University of Montreal	Canada	51.2	54.1	81.7	96.6	87.7	65.8
114	=104	University of Maryland, College Park	United States	49.4	58.1	92.8	70.2	48.6	65.7
115	107	Ghent University	Belgium	47.2	59.3	85.3	99.7	65.7	65.6
=116	94	University of Bern	Switzerland	45.1	47.0	93.3	99.2	87.0	65.4
=116	106	Michigan State University	United States	54.8	52.3	86.2	70.0	71.4	65.4
118	181	Texas A&M University	United States	55.2	62.1	77.3	76.4	64.1	65.3
=119	147	Rice University	United States	56.4	45.6	86.5	73.9	85.8	65.2
=119	=124	University of Vienna	Austria	48.7	60.3	77.4	75.9	94.9	65.2
121	110	University of Helsinki	Finland	48.1	57.6	90.6	69.2	56.7	65.1
122	=151	Penn State (Main campus)	United States	53.1	58.7	83.7	70.4	58.4	65.0
=123	=101	University of Basel	Switzerland	50.8	42.9	87.7	99.4	95.4	64.9
=123	191	University of Massachusetts	United States	54.0	46.9	87.3	85.6	77.3	64.9
125	121	Vrije Universiteit Amsterdam	Netherlands	40.4	51.0	93.4	91.5	84.3	64.7
126	=166	Technical University of Denmark	Denmark	50.7	47.4	83.2	99.7	92.2	64.6
127	126	University of Oslo	Norway	45.6	50.6	92.1	72.3	75.6	64.3
128	113	University of Freiburg	Germany	46.7	51.3	86.2	100.0	74.2	64.1
129	=128	University of Leeds	United Kingdom	46.1	49.1	87.3	68.8	94.6	63.9
=130	130	University of Nottingnam		45.6	45.9	90.6	/1.2	92.8	63.8
=130	201-250	IONOKU UNIVERSITY	Japan	67.8	66.4	53.8	99.9	58.5	03.8
132	101=	University of Productor	United States	50.0	30.7 42.0	10.3	00.9	01.7	03.7
133	-161	Trinity College Dublin	United States	30.8	42.9	00.3 97.6	09.0 76.6	01.7	62.0
104	-101	Oueon Man University of London	Ileidilu Unitod Kingdom	27.6	40.4	07.0	70.0	91.4	62.1
=136	=124	University of Hemburg	Germany	37.0	42.0	91.9 84 8	08.6	90.1 65.7	63.0
=130	=120	Technical University of Berlin	Germany	44.7	55.6	78.1	90.0	71 3	63.0
=138	=148	University of Colorado Boulder	United States	46.5	51.0	88.6	82.8	56.6	62.9
=138	145	Maastricht University	Netherlands	40.3	ларана Дл. 1	86.1	98.1	97 <u>/</u>	62.9
=140	=189	Karlsruhe Institute of Technology	Germany	41.4	56.8	72 5	99.9	77.6	62.5
=140	=139	Radboud University Niimegen	Netherlands	39.1	51.0	91.3	81.4	77 7	62.8
=140	=148	Unnsala University	Sweden	43.9	55.0	81.3	97.7	74.7	62.8
=143	135	University of Lausanne	Switzerland	41.7	46.3	87.3	99.5	90.4	62.7
=143	=131	The University of Western Australia	Australia	37.7	48.6	88.7	97.2	93.5	62.7
=145	144	University of Pittsburgh-Pittsburgh campus	United States	49.1	46.1	92.4	76.1	50.9	62.5
=145	=170	Sungkyunkwan University (SKKU)	South Korea	55.5	54.2	72.9	98.8	61.3	62.5
147	=139	University of York	United Kingdom	42.4	44.8	90.8	66.9	93.1	62.4
148	133	University of Technology Sydney	Australia	36.2	43.3	95.9	78.9	94.3	62.3
149	=163	Pohang University of Science and Technology (POSTECH)	South Korea	58.1	51.5	77.2	100.0	40.0	62.2
=150	=139	University of Auckland	New Zealand	39.7	45.7	88.3	95.8	89.9	62.0
=150	=196	Sichuan University	China	59.1	57.3	69.3	93.2	46.1	62.0

# PIONEERING INNOVATION, EMPOWERING TOMORROW



### COMPREHENSIVE

A comprehensive educational experience through **39** colleges and schools



### RESPONSIBLE

Strengthen commitment to the **17** Sustainable Development Goals.



### **RESEARCH-INTENSIVE**

Push the boundaries of knowledge and create discoveries with **21** world's top **1%** disciplines.



### OPEN

An international university with **4000+** international students and close collaborations with **600+** partners across **6** continents.

Connect with us https://www.zju.edu.cn/english







# KYUNGPOOK NATIONAL UNIVERSITY





\$	g	2	region		ent	quality		onal outlook	ore
k 202	k 202	itutio	ntry//	hing	earch ronm(	earch	istry	rnatic	rall so
Ran	Ran	Institution	Coul	Teac	Res	Res	Indu	Inte	Over
=152	182	University of Barcelona	Spain	42.4	47.3	91.4	83.9	65.2	61.9
=152	=187	National Taiwan University (NTU)	Taiwan	57.3	54.8	70.8	99.9	51.2	61.9
=152	=114	Université Paris Cité	France	47.9	42.7	90.6	68.3	73.2	61.9
=155	180	University of Arizona	United States	48.7	51.3	85.7	84.0	47.0	61.8
=155	=161	University of Bologna	Italy	53.0	44.6	86.5	79.4	54.3	61.8
=155	122	Lancaster University	United Kingdom	40.2	40.7	93.9	66.6	96.8	61.8
=158	=176	Huazhong University of Science and Technology	China	48.8	48.1	90.0	96.9	32.9	61.7
=158	201-250	University of Waterloo	Canada	42.2	49.3	83.7	78.3	89.3	61.7
160	146	University of Cologne	Germany	42.9	47.1	85.6	98.8	73.3	61.5
=161	=131	University of Antwerp	Belgium	38.2	44.4	92.5	98.4	74.7	61.4
=161	123	Dartmouth College	United States	57.3	40.7	84.7	68.4	60.2	61.4
=161	=156	TU Dresden	Germany	46.6	51.1	79.3	99.7	67.9	61.4
=164	134	Case Western Reserve University	United States	51.7	40.2	88.7	71.4	65.0	61.3
=164	173	Wuhan University	China	50.9	45.0	88.5	90.6	41.0	61.3
166	=156	University of Virginia (Main campus)	United States	51.1	40.1	88.9	79.9	60.8	61.1
167	160	University of Cape Iown	South Africa	38.7	47.0	88.3	78.2	82.9	60.9
=168	=1/0	Universite Catholique de Louvain	Belgium	39.5	49.4	83.1	92.0	83.1	60.8
=168	201-250	Eindhoven University of Technology	Netherlands	47.4	51.5	71.3	100.0	87.3	60.8
=168	351-400	Harbin Institute of lechnology		58.8	55.1	70.9	91.2	33.9	60.8
=168	=1/0	University of Liverpool	United Kingdom	38.4	40.2	93.4	64.9 70.1	96.4	60.8
=168	=139	Newcastle University	United Kingdom	31.2	41.1	93.8	72.1	91.3	60.8
=168	=183	Scuola Normale Superiore di Pisa	Italy	60.1 42 E	42.6	82.9	34.9	59.3	60.6
174	=198	Durnam University		43.5	44.5	83.5	05.0 100.0	95.8	60.6
175	251-300	Usaka University	Japan	02.5	00.7	00.0	100.0	51.0	60.4
=175	=139	University of wurzburg	China	40.3	43.4	90.8	99.0	03.Z	60.2
=177	201-300	Beijing Normal University	United Kingdom	22.5	40.8	05.7	07.0 52.2	02.3 05.5	60.2
=177	=137	University of Ottown		33.0	42.3	93.7	00.2	90.0	60.2
-177	-137	Macquaria University	Australia	39.0	40.5	04.4 87 /	00.2	88.6	60.1
100	201 250	Sapionza University of Pomo	Ausualia	52.5	44.2	77.0	90.9	00.0 /6 5	60.0
101	=156	Arizona State University (Tempe)	Inited States	/0.0	40.1	87.5	71 5	40.5	50.0
183	201-250	Iniversity of Geneva	Switzerland	40.9	40.2 38.0	86.7	80.7	97.1	50.8
18/	201-200	University of Twente	Netherlands	41.0	46 0	75.1	99.6	03.3	50.7
=185	=176	Stockholm University	Sweden	32.1	40.0	91.0	59.0	81.2	59.6
=185	251-300	Tongii University	China	50.0	53.6	69.5	85.4	67.7	59.6
=187	136	Georgetown University	United States	52.6	37.0	85.1	92.2	53.2	59.5
=187	179	University of Mannheim	Germany	36.5	45.4	90.2	93.6	63.7	59.5
189	251-300	Chalmers University of Technology	Sweden	42.7	46.6	79.4	97.1	74.1	59.4
190	=187	Cardiff University	United Kingdom	35.5	39.6	91.9	70.4	92.5	59.3
=191	301-350	Tokyo Institute of Technology	lanan	59.5	63.3	49.4	100.0	60.1	59.2
=191	=151	Tufts University	United States	51.5	35.0	87.5	71.7	62.8	59.2
=193	=196	University of Erlangen-Nuremberg	Germany	42.6	48.1	79.7	100.0	61.0	59.0
=193	201-250	University of Macau	Масао	38.4	38.1	90.3	61.9	93.7	59.0
=193	185	University of Münster	Germany	43.8	47.3	83.7	81.5	53.5	59.0
=193	201-250	University of St Andrews	United Kingdom	46.0	42.6	77.7	63.6	95.8	59.0
=193	=148	UIm University	Germany	40.6	41.2	87.9	99.6	63.0	59.0
198	=170	Indiana University	United States	47.3	38.4	84.9	85.8	64.7	58.9
=199	201-250	University of Notre Dame	United States	51.9	42.6	76.1	72.9	69.9	58.7
=199	201-250	Queensland University of Technology	Australia	33.9	42.1	89.5	85.9	82.2	58.7
=199	174	Ulsan National Institute of Science and Technology (UNIST)	South Korea	47.7	40.8	85.0	94.6	46.5	58.7



# ORGINAL THIS IS NOT THE OUTPONT OF T

# We are research that makes headlines and discoveries that make history.

Our ideas, innovations and enterprises have helped us respond to grand challenges since our inception. We conduct research that has a significant impact on global policy, technology, the environment, and the health and wellbeing of people around the world.

Take the way we discovered the mosquito transmission of malaria through to our pioneering work to develop a new vaccine for Zika. Or how we've built an autonomous mobile robot to help us make ground-breaking discoveries ten times faster.

Find out how we're shaping a better tomorrow.



liverpool.ac.uk/research

# 20 years of rankings

## From 200 universities to almost 2,000, the World University Rankings have become more global and inclusive. Ellie Bothwell goes through the archives

S dominates worldwide league tables."

"West is best but there's a rich feast in the East."

These headlines from the first edition of the *Times Higher Education* World University Rankings in 2004 at once demonstrate how little and how much has changed in global higher education over the past 20 years.

At first glance, they are headlines that could have been written in this supplement – after all, the US is still the most-represented country in the ranking, both overall and in the top 200, and institutions in the West still fill the top 10 positions.

But the ranking has expanded from just 200 institutions in 2004 to more than 1,900 this year, meaning we now have a much more detailed picture of global higher education performance.

The US now accounts for only 9 per cent of institutions in the table; Asia has been the mostrepresented continent since the 2021 edition (overtaking Europe); and Africa and South America each have more than 100 universities represented. To say the US dominates would be a gross oversimplification.

But a comparison between the ranking now and 20 years ago tells us only so much. We've looked through the archives to pull out the most eye-catching stories from the rankings over the past two decades and explore what they tell us about the development of global higher education.

#### The rise of China

It is difficult to select just one data point summing up China's extraordinary and consistent rise in the rankings. While Peking University ranked 17th in the world in the first edition of the table in 2004, only four others made the top 200 (the second highest was Tsinghua University in 62nd place). The 2024 edition features 13 Chinese institutions in the top 200, and six of those are in the top 60. Tsinghua is now the highest ranked among them, at 12th.

But perhaps the most striking development was in the 2020 edition, when China became home to the top two universities in Asia for the first time (previously Japan and then Singapore led the continent).

Chinese universities have been closing the gap with the US on citation impact since the 2018 edition, and in 2021 the research quality of the middle-ranking universities in the two countries – based on the number of citations achieved by the middle 50 per cent of ranked universities – began to converge for the first time. This meant that some middle-ranking Chinese universities were outperforming some middle-ranking US universities.

China's median research income also overtook the US' for the first time in 2021.

Meanwhile, the data we collect through our Academic Reputation Survey has revealed that international scholars in arts, humanities and social sciences are increasingly recognising Chinese institutions – a notable trend given that the rising global reputation of the country's universities is usually attributed to its scientific prowess.

The Chinese government has consistently invested in higher education and research and development for more than two decades, with funding specifically targeted at developing world-class universities, training scholars at top institutions in the West and building capacity in China.

However, last year's data suggests that internationalisation is a weak link for the Asian superpower.

#### Oxford becomes number one

The University of Oxford became the first UK university to top the *THE* World University Rankings in the 2017 edition – replacing the five-time leader, the California Institute of Technology, known in the US as Caltech – and it has been at the helm ever since.

Oxford's rise that year was attributed to the fact that its total income and research

income were rising faster than its staff numbers, its research was more influential, and it had been more successful at drawing in international talent.

Louise Richardson, who was then Oxford's vice-chancellor, said at the time that the key factor was recruiting the best people.

"Any university is only as good as the academics it can attract," she said.

"The best academics attract other top academics as well as smart early career academics. They attract the best students and the most competitive research funding, so it really is a virtuous circle. The key is for universities to provide an environment in which these academics are valued, in which young academics are supported and in which all are free to set their own research agendas."

However, Harvard University has topped the World Reputation Rankings since they began in 2011 (despite not leading the World University Rankings since the 2011 edition), proving that prestige is both hard to win and difficult to shake.

While the UK is one of the top national performers in the ranking – it consistently has the second-high-

2000 1,300 responses from 888 countries to reputation survey 299 territories

Any university is only as good as the academics it can attract
est representation in the top 200, and is the only country other than the US to regularly feature in the top 10 - it is not always plain sailing for the UK's other institutions.

Analysis of the 2020 edition revealed that the funding gap between the UK sector and other major higher education systems was widening, leading to declines for many of the country's leading universities.

#### The growing importance of internationalisation

The World University Rankings have always included metrics relating to international outlook, but these have expanded, while universities' own data submissions reveal that institutions have become increasingly global.

The first edition of the ranking was based on just five performance indicators, two of which covered internationalisation: proportion of international staff and proportion of international students. The 2011 edition introduced a third measure on the share of internationally coauthored research.

There is now more student and academic mobility, and more crossborder research, than ever before. Data from the 2019 edition of the rankings showed that most countries had improved their average scores in the international outlook pillar when

niversities

compared with the 2016 data.

Newer universities are particularly excelling in this regard. The world's youngest universities outperform their older counterparts when it comes to attracting overseas students and publishing international research, according to data from the 2017 edition. This was backed up by data in 2019 showing that institutions set up since 2000 appear to have the biggest lead when it comes to researchers teaming up across borders.

#### The Middle East is a region to watch

Saudi Arabia, the United Arab Emirates and Israel are all lurking just outside the top 200 of this year's World University Rankings.

While institutions from some of those countries have briefly featured in this elite group in previous years, a key question is whether any of these nations can hold on to a spot in the upper echelons of the table amid growing global competition.

Data from the 2022 edition revealed that universities in Saudi Arabia and Egypt were the fastestrising higher education institutions in the world, improving more quickly than those in mainland China. One of Saudi Arabia's main goals in its Vision 2030 strategy is to have at least five universities in the top 200 in the world.

Another country to watch outside of the Middle East region is India. Its flagship, the Indian Institute of Science, ranks 201-250 this year (it last made that position in 2017). The country has hugely ambitious goals under its 2020 National Education Policy, including a new National Research Foundation, but whether the reforms take off remains to be seen.

108

## 16.5 million research papers

2024

**1,904** 

countries to

reputation survey



#### A BRIEF HISTORY OF THE TIMES HIGHER EDUCATION RANKINGS



2004 The Times Higher Education Supplement (as it was then known) publishes the first edition of the World Uni-

November

versity Rankings, in partnership with Quacquarelli Symonds (QS), ranking 200 universities. The methodology was based on just five performance indicators: staff-to-student ratio, reputation of academics (based on a survey), research paper citations, proportion of international staff on campus and proportion of international students.

#### November 2009

Times Higher Education sets up a new partnership with Thomson Reuters to develop a more sophisticated ranking system. A new methodology using 13 separate indicators is devised, following a global opinion survey of higher education professionals and student consumers of rankings. It includes new metrics for teaching and knowledge transfer in addition to research excellence.

#### September 2010

The first *THE* World University Rankings, powered by Thomson Reuters, are published.

#### March 2011

The *THE* World Reputation Rankings – showing the results of the academic reputation survey in isolation from the other rankings indicators – are launched.

#### September 2011

The *THE* World University Rankings doubles in size, ranking 400 universities.

#### May 2012

THE launches the Young University Rankings, listing the top universities that are aged 50 years and under.

#### April 2013

The first Asia University Rankings are published.

#### November 2014

*THE* ends its partnership with Thomson Reuters, and all the core institutional and reputational data are gathered and managed in-house by *THE*'s team of data experts for the first time. *THE* establishes a new collaboration with Elsevier as a bibliometric data supplier.

#### September 2015

The World University Rankings expands again, featuring 800 universities.

#### July 2016

The first Latin America University Rankings are published.

#### September 2016

The cap on the number of ranked institutions is removed, meaning that all eligible institutions that submit data are listed for the first time – a total of 981 universities. The methodology is further enhanced, with books and book chapters included among the research outputs evaluated (alongside journal articles, reviews and conference proceedings). The calculations are audited by PricewaterhouseCoopers.

#### October 2016

*THE* launches the teaching-focused US College Rankings, in partnership with *The Wall Street Journal*.

#### March 2017

THE launches the teaching-focused Japan University Rankings, in partnership with Benesse Corporation.

#### September 2017

More than 1,000 universities feature in the World University Rankings for the first time.

#### April 2019

The THE Impact Rankings, the only global performance tables that assess universities against the United

#### Nations' Sustainable Development Goals, are launched.

#### July 2021

THE releases the first Arab University Rankings.

#### September 2021

For the first time, universities that submit data but do not meet the eligibility criteria to receive a rank are listed as "reporter" institutions, bringing the total number of universities in the table to over 2,000.

#### April 2023

*THE* announces the new World University Rankings methodology (WUR 3.0), featuring 17 performance indicators – including three new metrics on citations and one new metric on patents. Improvements are also made to the international outlook metric calculations.

#### June 2023

*THE* publishes the first Sub-Saharan Africa University Rankings, in partnership with Mastercard Foundation, in a project led by Ashesi University in Ghana. The rankings aim to assess the impact of universities in addressing some of the toughest challenges faced in the region.

## 



Promoting sustainable and inclusive social development at the local, national and global level.



## 16 campuses across the Mexican state of Jalisco





## UNIVERSITAS AIRLANGGA

— Excellence with Morality -



Universitas Airlangga is strategically located at the center of Indonesia, enabling access to both the country's eastern and western regions. Ranked #3 as the best universities in Indonesia, Universitas Airlangga is your perfect gateway to the rich and diverse research topics across the Indonesian archipelago.

Innovation and impact-driven, our study programs are nationally and internationally accredited. We ensure quality study and research experiences for domestic and global academia, aiming at bringing positive contribution to the improvement of both local and global communities and environment.

#### Research

Universitas Airlangga focuses on 9 research and innovation areas, each is coordinated by a commission. The 9 areas are:

- **T** Food
- 2 Health
- 3 Information and Communication Technology
- 4 Advanced Materials
- 5 Coastal and Marine
- 6 Disaster
- 7 Social, Humanities, Arts, Culture, and Education
- 8 Energy
- 9 Engineering and Technology

The 9 areas are further specified into 45 research and innovation themes, ensured to accommodate and facilitate a wide array of researchers aiming to expand their experience and achievement with Universitas Airlangga. **1201-1500** World University Rankings 2023

**101–200** Impact Rankings 2023



#### Learn more about us at: https://unair.ac.id/en/





🕑 @Unair\_Official

Universitas Airlangga

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
201-250	251-300	Aalborg University	Denmark	33.7	45.0	83.0	80.6	72.4	55.9-58.6
	201-250	Aalto University	Finland	42.0	43.1	79.7	87.2	81.8	55.9-58.6
	=192	University of Aberdeen	United Kingdom	36.4	35.8	81.8	78.9	97.5	55.9-58.6
	301-350	Abu Dhabi University	United Arab Emirates	48.2	30.0	85.8	25.5	97.8	55.9-58.6
	=183	Autonomous University of Barcelona	Spain	45.1	41.4	84.8	67.6	68.8	55.9-58.6
	201-250	University of Calgary	Canada	36.5	41.4	81.7	88.8	85.2	55.9-58.6
	=192	University of California, Santa Cruz	United States	34.9	39.8	93.3	73.2	77.9	55.9-58.6
	201-250		Australia	30.2	36.5	87.5	/8.8	94.7	55.9-58.6
	=189	Friedrich Schiller University Jena	Germany	43.2	42.0	81.8	79.8	69.3	55.9-58.6
	201-250	George Washington University	United States	48.2	35.7	86.0	07.3	00.1	55.9-58.6
	201-300		Germany	40.2	38.2	82.4	74.0	70.8 CE 7	55.9-58.0 EE 0 E0 C
	201-200	University of Gothenburg	Junited States	34.0 42.0	43.4	90.2 75.9	69.2	77.2	55.0 59.6
	251-500		United States	42.0	42.0	20.0	00.3 76.7	61.0	55.0 59.6
	251-300		India	62.0	57.8	53.0	96.0	21.0	55.9-58.6
	301-350	Iniversity of Iowa	United States	02.5 46.1	37.0	79.9	90.0 88.6	55.8	55 9-58 6
	201-250	King Fahd University of Petroleum and Minerals	Saudi Arabia	37.6	38.7	86.3	90.9	84.8	55 9-58 6
	201-250	Korea University	South Korea	48.6	46.6	72.0	99.7	62.5	55 9-58 6
	=163	University of Leicester	United Kingdom	33.4	34.2	95.5	67.9	95.1	55.9-58.6
	201-250	Université Libre de Bruxelles	Belgium	35.8	45.0	83.5	76.4	89.6	55.9-58.6
	201-250	University of Luxembourg	Luxembourg	39.6	39.4	78.1	63.0	93.2	55.9-58.6
	=168	Medical University of Graz	Austria	32.0	33.5	91.6	94.9	81.9	55.9-58.6
	=194	Medical University of Vienna	Austria	40.0	28.7	93.5	94.1	81.7	55.9-58.6
	=194	University of Miami	United States	48.5	34.7	83.2	80.4	67.5	55.9-58.6
	201-250	Moscow Institute of Physics and Technology (MIPT)	Russian Federation	63.5	48.8	55.1	68.6	72.7	55.9-58.6
	301-350	Nagoya University	Japan	55.3	55.7	54.3	99.5	41.9	55.9-58.6
	201-250	University of Newcastle	Australia	33.8	38.8	85.5	76.5	83.4	55.9-58.6
	=168	Northeastern University, US	United States	40.2	33.6	93.3	68.9	83.3	55.9-58.6
	201-250	University of Padua	Italy	46.1	38.5	84.1	77.1	53.1	55.9-58.6
	301-350	Politecnico di Milano	Italy	42.9	49.7	71.9	95.3	65.3	55.9-58.6
	186	Pompeu Fabra University	Spain	35.9	38.3	90.5	78.4	74.7	55.9-58.6
	201-250	University of Potsdam	Germany	37.3	44.7	80.4	91.0	68.5	55.9-58.6
	=198	Queen's University Belfast	United Kingdom	34.0	38.0	88.7	65.0	98.4	55.9-58.6
	=198	University of Reading	United Kingdom	37.5	40.6	84.1	70.8	95.5	55.9-58.6
	201-250	Rutgers University – New Brunswick	United States	46.4	37.2	78.4	80.1	63.7	55.9-58.6
	201-250	Sant'Anna School of Advanced Studies – Pisa	Italy	50.4	39.0	80.1	90.3	60.8	55.9-58.6
	201-250	University of São Paulo	Brazil	59.8	60.7	57.3	68.2	42.5	55.9-58.6
	=166	Southern University of Science and Technology (SUSTech)	China	32.9	40.8	92.8	60.3	69.3	55.9-58.6
	251-300	Sun Yat-sen University	China	46.6	39.5	83.2	86.2	39.1	55.9-58.6
	201-250	University of Sussex	United Kingdom	29.7	35.6	92.7	66.1	95.4	55.9-58.6
	301-350	Swinburne University of Technology	Australia	31.7	34.0	91.3	75.4	85.6	55.9-58.6
	201-250	Iel Aviv University	Israel	40.7	49.7	83.0	76.2	52.9	55.9-58.6
	401-500		China	46.1	47.6	/1.4	93.5	55.3	55.9-58.6
	251-300	Liburg University	Netherlands	32.8	44.9	80.1	82.6	84.5	55.9-58.6
	201-250		Ireland	34.3	41.3	84.0	/5.1	88.1	55.9-58.6
	251-300	University of Utan	United States	43.5	38.5	87.0	83.5	40.9	55.9-58.6
	201-250	Vije universitett Brussel	Ganada	37.8	42.6	80.9	92.4	78.5 97 E	55.0 59.0
	201-250	Western University	Australia	40.2	42.9	15.2	99.6	δ <i>1</i> .5	55.9-58.0
	201-250		Australia	30.8	39.3	84.0	91.4	91.7	00.9-08.0



# 175 years of aiming higher

The University of Ottawa is building on its proud history and bilingual nature to scale new heights. Fuelled by our commitment to transformative research, we continue to elevate and mobilize knowledge, and rise to the challenge of creating a better, more inclusive world for all.



Découvrez nos activités de recherche et d'innovation



Discover our research and innovation

ank 2024	ank 2023	nstitution	ountry/ region	eaching	(esearch mironment	esearch quality	ndustry	nternational outlook	verall score
251 200	251 200	E University of Doth	O United Kingdom	24.7	02 0 05 1	20 E		05.0	E2 1 EE 0
201-300	501-600	Bailing Institute of Technology	China	54.7 //5.1	30.1 44.0	00.3 7/1 7	82.1	90.0 36.8	53 1-55 8
	201-250	Iniversity of Bergen	Norway	36.7	33.9	84.2	69.4	76.3	53 1-55 8
	251-300	Boston College	United States	43.5	30.5	84.6	60.7	57.8	53 1-55 8
	301-350	Brandeis University	United States	36.7	28.3	84.6	64.2	81.4	53.1-55.8
	251-300	University of California, Riverside	United States	35.9	35.4	85.7	70.6	77.0	53.1-55.8
	251-300	Deakin University	Australia	28.3	34.6	91.4	72.2	85.7	53.1-55.8
	201-250	University of East Anglia	United Kingdom	31.1	32.0	90.9	51.6	88.7	53.1-55.8
	301-350	École Normale Supérieure de Lyon	France	58.5	46.8	53.9	78.5	68.0	53.1-55.8
	301-350	Florida State University	United States	38.2	38.6	79.4	68.2	58.8	53.1-55.8
	251-300	Griffith University	Australia	30.5	37.8	82.7	74.6	81.8	53.1-55.8
	251-300	Heinrich Heine University Düsseldorf	Germany	36.7	34.5	82.3	82.2	66.8	53.1-55.8
	201-250	University of Hohenheim	Germany	35.0	35.5	85.7	80.5	61.7	53.1-55.8
	201-250	Humanitas University	Italy	32.3	27.9	98.0	62.8	67.1	53.1-55.8
	251-300	Johannes Gutenberg University of Mainz	Germany	39.5	32.6	82.3	89.0	66.0	53.1-55.8
	351-400	Khalifa University	United Arab Emirates	31.7	35.9	78.4	95.6	97.4	53.1-55.8
	=101	King Abdulaziz University	Saudi Arabia	37.8	28.6	90.7	46.1	75.4	53.1-55.8
	201-250	University of Konstanz	Germany	39.8	44.4	/1.5	97.4	76.4	53.1-55.8
	251-300	Kyung Hee University	South Korea	40.3	40.0	/1.0	95.9	(1.5	53.1-55.8
	301-350	Lappeenranta-Lanti University of lechnology LUI		33.4	30.7	91.7	05.1 72.9	64.2	53.1-55.8
	251-300	La Irobe University	Australia	28.9	30.4	88.1 72.7	13.8	88.2 76.0	53.1-55.8
	251-300		Sweden	40.7 28.3	JO.7	86.4	94.2 02.8	70.2	53 1-55 8
	351-400	Luidhharaudh University	United Kingdom	36.5	34.4	77.4	70.2	91.5	53 1-55 8
	201-250	Macau University of Science and Technology	Macao	33.1	34.4	78.9	65 0	94.7	53 1-55 8
	351-400	University of Malaya	Malavsia	43.4	35.4	72.6	52.5	84.7	53.1-55.8
	201-250	Medical University of Innsbruck	Austria	33.2	29.3	89.6	98.6	88.3	53.1-55.8
	301-350	Nankai University	China	48.8	31.4	85.3	66.5	49.3	53.1-55.8
	351-400	North Carolina State University	United States	46.0	41.4	73.3	79.1	61.8	53.1-55.8
	301-350	University of Oulu	Finland	33.1	38.2	84.1	66.0	59.5	53.1-55.8
	201-250	Qatar University	Qatar	31.3	35.6	83.4	61.8	96.0	53.1-55.8
	251-300	Queen's University	Canada	37.5	38.0	72.3	94.0	76.0	53.1-55.8
	201-250	RCSI University of Medicine and Health Sciences	Ireland	32.3	36.6	81.7	76.9	91.6	53.1-55.8
	301-350	RMIT University	Australia	35.5	36.2	83.2	73.2	92.8	53.1-55.8
	251-300	Ruhr University Bochum	Germany	39.8	46.7	72.2	85.9	60.0	53.1-55.8
	251-300	Sejong University	South Korea	31.4	34.5	94.0	73.8	68.6	53.1-55.8
	201-250	Semmelweis University	Hungary	45.2	27.8	76.9	66.4	79.9	53.1-55.8
	251-300	Simon Fraser University	Canada	28.7	36.7	84.2	83.1	92.9	53.1-55.8
	401-500	South China University of lechnology	China	36.6	38.2	83.2	92.8	44.0	53.1-55.8
	251-300	University of Southern Denmark	Denmark	29.8	33.5	89.1	91.5	76.9	53.1-55.8
	201-250	University of South Florida	United States	31.7	30.4	87.0 01.4	99.9	00.7 70.0	53.1-55.8
	201-250	Stony Brook University	Cormony	43.0	29.7	62.1	00.0	10.0	52 1 55 9
	201-250	University of Stutigati	United Kingdom	44.0 31.3	49.0	03.1 88.0	99.0 73.0	06.8	53 1-55 8
	201-250	Università della Svizzera italiana	Switzerland	34.8	26.4	84.0	88.3	98.5	53 1-55 8
	251-200	Swansea University	United Kingdom	27.6	30.2	89.7	62.8	89.5	53.1-55.8
	301-350	University of Tasmania	Australia	31.6	38.4	82.0	70.5	90.9	53.1-55.8
	301-350	Technical University of Darmstadt	Germany	42.4	48.1	62.6	99.8	65.4	53.1-55.8
	401-500	TU Wien	Austria	43.8	44.1	57.6	96.2	86.7	53.1-55.8
	251-300	Virginia Polytechnic Institute and State University	United States	42.5	39.4	78.8	76.7	65.4	53.1-55.8
	201-250	Vita-Salute San Raffaele University	Italy	34.6	26.9	98.3	66.8	49.8	53.1-55.8
	501-600	Xi'an Jiaotong University	China	46.9	48.0	70.0	98.3	37.8	53.1-55.8

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
301-350	501-600	Beihang University	China	42.9	43.5	68.6	94.7	34.5	51.1-53.0
	351-400	University of Bremen	Germany	39.8	39.0	68.8	67.2	65.0	51.1-53.0
	301-350	University at Buffalo	United States	39.9	34.1	76.1	74.8	71.4	51.1-53.0
	NR	Catholic University of the Sacred Heart	Italy	35.2	30.0	89.4	74.5	52.3	51.1-53.0
	251-300	China Medical University, Taiwan	Taiwan	27.3	32.8	92.4	89.9	49.7	51.1-53.0
	251-300	Copenhagen Business School	Denmark	21.1	32.3	92.1	43.8	91.5	51.1-53.0
	301-350	Dalhousie University	Canada	30.8	31.6	78.9	71.7	89.1	51.1-53.0
	301-350	Drexel University	United States	44.1	26.0	79.6	75.6	62.2	51.1-53.0
	201-250	University of Dundee	United Kingdom	26.7	32.1	84.9	83.0	91.1	51.1-53.0
	351-400	East China Normal University	China	42.7	35.1	76.3	66.3	56.4	51.1-53.0
	301-350	University of Essex	United Kingdom	30.0	31.8	81.0	57.7	97.4	51.1-53.0
	301-350	Flinders University	Australia	29.2	35.4	78.4	71.0	88.9	51.1-53.0
	301-350	University of Galway	Ireland	32.9	33.8	76.7	83.0	77.6	51.1-53.0
	401-500	Université Grenoble Alpes	France	42.2	37.9	66.9	69.1	71.6	51.1-53.0
	401-500	Hanyang University	South Korea	45.4	40.4	62.0	99.4	66.5	51.1-53.0
	251-300	Hebrew University of Jerusalem	Israel	46.4	36.3	68.9	71.0	46.8	51.1-53.0
	501-600	Hong Kong Baptist University	Hong Kong	34.0	28.9	77.2	69.6	97.8	51.1-53.0
	401-500	University of Innsbruck	Austria	34.4	33.1	70.3	79.6	94.7	51.1-53.0
	251-300	University of Kiel	Germany	33.3	33.3	81.6	63.0	62.9	51.1-53.0
	501-600	Kyushu University	Japan	55.0	47.5	51.2	98.4	48.8	51.1-53.0
	351-400	University of Liège	Belgium	33.5	38.7	72.7	95.5	73.6	51.1-53.0
	301-350	Montpellier University	France	38.3	35.6	74.7	68.1	68.5	51.1-53.0
	251-300	University of Navarra	Spain	35.6	30.4	82.3	79.1	74.4	51.1-53.0
	501-600	Northwestern Polytechnical University	China	37.4	40.6	74.7	86.7	48.4	51.1-53.0
	401-500	Norwegian University of Science and Technology	Norway	36.0	38.4	74.7	67.8	66.2	51.1-53.0
	251-300	Oregon Health and Science University	United States	39.1	21.3	91.7	86.8	34.6	51.1-53.0
	301-350	University of Otago	New Zealand	35.6	35.1	/5.8	68.8	81.8	51.1-53.0
	251-300		Italy	37.6	32.3	82.7	80.4	50.4	51.1-53.0
	351-400	University of Rome II – for Vergata	Italy	39.9	33.5	74.3	11.5	66.9	51.1-53.0
	351-400	Royal Holloway, University of London	United Kingdom	31.6	29.3	79.0	63.3	94.6	51.1-53.0
	201-250	St George S, University of London	United Kingdom	23.5	25.8	93.5	00.0	79.5	51.1-53.0
	401-500	Sharif University of Technology	Iran	39.1	37.4	18.3	86.2	37.0	51.1-53.0
	301-350	University of South Australia	Australia	25.0	30.8	82.5	98.3	83.5	51.1-53.0
	401-500	Southeast University	China Courth Africa	39.9	46.3	68.4	90.4	47.6	51.1-53.0
	201-300	Stellenbosch University	South Africa	33.8	39.0	70.9	89.8 75.5	01.0	51.1-53.0
	401-300	Current and Arright Sciences	Sweden	32.4	30.0	70.0	10.0	91.9	51.1-55.0
	201 250	Tempore University of Agricultural Sciences	Sweden	34.1 20.6	34.9 20 /	10.0	02.4	04.4 10.0	51.1-53.0
	301-300	Tampere University	Filliallu	30.0	30.4	80.9 00.5	93.1	49.8	51.1-55.0
	201-200	Universiti Teknologi Detronog	Estonia	32.8	31.0 27.0	00.0 77 7	67.0	77.0	51.1-53.0
	201 250	The University of Tennessee Knowille	Malaysia	20.0	31.0 21.6	015	72.0	F6 1	51.1-55.0
	251 400		Finland	38.U 21.6	24.0	04.0	67.0	50.1	51.1-53.0
	251,200	United Arab Emirates University	United Arab Emirates	27.0	34.9	03.3 02.2	77.4	92.9 80.1	51.1-53.0
	201-200	University College Cork	Ireland	21.0	21.6	03.2 02.4	75.0	77.0	51.1-53.0
	351.400	Washington State University	Inited States	20.3	31.0	7/ 9	82.0	60.3	51 1-53 0
	201.250	Western Sydney University		20.9 20 F	21.7	(4.0 97 7	51.5	87 0	51 1-53 0
	201-200	Iniversity of the Witwatersrand	South Africa	29.0	/2.0	70 /	91.0 91.2	76.2	51.1-53.0
	/01.500	Viamon University	China	20.0	42.9 22 F	(2.4 02 7	01.3 70.1	10.3 20 A	51.1-53.0
	401-300	Alamen Ulliveisity	GIIIIa	30.0	33.3	03.1	72.1	30.4	51.1-55.0

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
351-400	301-350	Aix-Marseille University	France	43.0	27.2	71.9	63.2	76.3	49.1-51.0
(cont)	601-800	Amirkabir University of Technology	Iran	34.8	33.7	77.0	85.1	38.8	49.1-51.0
	301-350	Autonomous University of Madrid	Spain	38.7	29.9	76.3	65.4	60.9	49.1-51.0
	401-500	University of Bayreuth	Germany	38.0	40.8	65.0	83.4	67.7	49.1-51.0
	301-350	University of Bordeaux	France	37.2	29.9	72.5	66.7	66.6	49.1-51.0
	401-500	Brunel University London	United Kingdom	25.2	26.5	80.7	60.1	98.4	49.1-51.0
	401-500	University of Campinas	Brazil	50.0	45.5	54.0	65.5	40.4	49.1-51.0
	201-300	Change in the second se	Australia	24.1	31.0	82.4	40.8	88.3	49.1-51.0
	251 400	City University of London	United Kingdom	32.8 97.4	30.Z	70.6	79.0 61.0	42.0	49.1-51.0
	301-350	University of Colorado Denver/Anschutz Medical Campus	United States	21.4	30.9 23.7	10.0 03.7	01.0 73 /	90.0 36.0	49.1-51.0
	401-500	University of Connecticut	United States	/11.2	20.7	93.1 70.8	68.7	50.9 64.6	49.1-51.0
	401-300 NR	Daggu Gyeonghuk Institute of Science and Technology (DGIST)	South Korea	41.2	30.2	6/ 8	78.1	34.5	49.1-51.0
	351-400	Fdith Cowan University	Australia	23.7	26.2	86.9	69.2	87.6	49 1-51 0
	401-500	University of Electronic Science and Technology of China	China	34.8	35.2	80.9	85.5	33.9	49 1-51 0
	401-500	University of Florence	Italy	35.5	34.4	78.6	72.9	51.9	49.1-51.0
	401-500	Free University of Bozen-Bolzano	Italy	31.8	22.8	85.5	45.6	78.6	49.1-51.0
	601-800	University of Georgia	United States	41.2	40.5	68.2	69.8	43.9	49.1-51.0
	301-350	Hasselt University	Belgium	33.5	38.1	69.1	83.9	71.6	49.1-51.0
	501-600	Heriot-Watt University	United Kingdom	34.3	33.4	65.2	75.1	94.8	49.1-51.0
	501-600	Hokkaido University	Japan	51.2	44.0	47.4	95.1	47.5	49.1-51.0
	401-500	Hunan University	China	28.9	30.4	92.0	75.2	32.5	49.1-51.0
	401-500	Illinois Institute of Technology	United States	42.6	26.9	67.8	91.5	73.2	49.1-51.0
	401-500	Iowa State University	United States	39.5	34.5	69.3	84.8	46.0	49.1-51.0
	351-400	James Cook University	Australia	28.3	30.9	79.6	58.9	77.7	49.1-51.0
	401-500	Justus Liebig University Giessen	Germany	34.4	38.0	72.5	70.5	62.7	49.1-51.0
	401-500	University of Kansas	United States	42.7	25.9	73.1	79.9	58.6	49.1-51.0
	401-500	Koç University	Turkey	31.8	40.5	68.9	91.9	57.4	49.1-51.0
	401-500	Leibniz University Hannover	Germany	38.3	41.5	62.1	81.6	58.2	49.1-51.0
	351-400	University of Manitoba	Canada	31.8	34.7	76.3	62.3	59.1	49.1-51.0
	501-600	Middle East lechnical University	lurkey	44.2	43.1	53.6	81.9	56.0	49.1-51.0
	301-350	University of Milan	Italy	31.3	31.8	87.3	69.5	47.2	49.1-51.0
	301-300	University of Millan-Bicocca	Italy	21.8	20.0	91.1	67.0	47.0	49.1-51.0
	351-400	Injuersity of Naples Federico II	Ausualia	25.2	29.0	01.4 86.0	72.0	94.2 35.4	49.1-51.0
	301-350	Pater the Great St Patersburg Polytachnic University	Russian Federation	/3/	20.3	67.4	61.6	65.2	49.1-51.0
	401-500	Sahanci University		4J.4 31.7	37.9	69.5	90.2	66.6	49.1-51.0
	301-350	University of St Gallen	Switzerland	33.8	21.0	81.4	66.6	93.6	49 1-51 0
	501-600	University of Saskatchewan	Canada	39.0	35.1	62.9	95.8	78.9	49.1-51.0
	251-300	University of Shariah	United Arab Emirates	20.7	25.7	93.8	29.0	98.8	49.1-51.0
	401-500	Shenzhen University	China	27.8	34.3	85.3	57.9	42.4	49.1-51.0
	401-500	Southern Medical University	China	44.1	36.7	74.8	56.4	30.4	49.1-51.0
	301-350	University of Southern Queensland	Australia	28.4	25.9	88.0	46.9	81.8	49.1-51.0
	501-600	Technion Israel Institute of Technology	Israel	37.5	34.0	66.9	68.1	71.8	49.1-51.0
	301-350	Temple University	United States	40.7	24.3	85.2	70.4	43.6	49.1-51.0
	351-400	University of Texas at Dallas	United States	29.5	28.3	84.9	72.3	62.7	49.1-51.0
	401-500	University of Trento	Italy	29.3	34.8	80.5	65.2	61.1	49.1-51.0
	501-600	University of Tsukuba	Japan	51.8	42.6	52.3	72.9	51.3	49.1-51.0
	301-350	University of Victoria	Canada	27.4	31.2	80.1	63.8	88.9	49.1-51.0
	401-500	York University	Canada	28.2	32.4	78.3	69.6	79.5	49.1-51.0

# Training the doctors of tomorrow

The Medical Sciences Division at Macau University of Science and Technology is the first and only centre in the region to offer a certified vocational programme for medics and associated professions. Now it's gaining a reputation for innovation and research

ounded in 2000, Macau University of Science and Technology (MUST) has always taken an interdisciplinary approach to teaching and research. Despite being a relatively young university, it has expanded rapidly in the past two decades, now ranking among the top 20 universities in Greater China. It was established soon after Macao was returned to Chinese sovereignty in 1999, having been a Portuguese colony for centuries before. The university's founders wanted to develop a curriculum that would support Macao's growth while boosting science and technological innovation in China and beyond.

The Faculty of Chinese Medicine, a traditional medical system that embraces unique theories and treatment methods, was established as one of the four founding faculties of the new university. Despite being an ancient practice, Chinese medicine forms a key part of Macao's five-year development plan. In 2011, MUST established the first state key laboratory in the field of Chinese medicine. Health science education expanded with the introduction of new programmes in public health, nursing, pharmacy and food and nutrition.

The Faculty of Medicine is the youngest faculty at the university, founded in 2019 when the university launched Macao's first and only bachelor's programmes in medicine and surgery. This makes MUST the only institution in the region that's certified to train the doctors of the future. The programme's curriculum focuses on real-world competencies and applications, using teaching approaches that help students to solve problems with their clinical knowledge. It is a six-year course, comprising five years of integrated courses and clinical attachments and a one-year internship.

"At MUST, we have a unique integration of Eastern and Western medicines, using innovative technology as a bridge," says vice-president Paul Kwong Hang Tam. As a result of its unique position, the university made the strategic decision to establish the Medical Sciences Division (MSD) to bring all its medical science interests under one umbrella to increase their collective impact. "There is synergy and potential, with cutting-edge technology bringing all these disciplines together. Universities are all trying to contribute to areas of strategic importance and health, not just in Macao but in the Greater Bay Area," Tam says.

This is not the first time MUST has brought together disciplines to enhance outcomes. It has already built a new Faculty of Innovation Engineering (FIE), which brings together a number of research clusters, including computer science and mathematics, into a single unified structure that collaborates with other disciplines such as space science and environmental science. "We believe the FIE and MSD will become the powerful twin engines of strategic development and growth in science and technology for the university," Tam says. "They will act as a new platform to ensure education and research is translated into successful outcomes for clinical practice and industry."

As a private, non-profit university, MUST can take an agile approach to research and development, and has already achieved an impressive record of journal citations and invested significantly in lab facilities. The output of patents originating at MUST has increased several times since it was established, and the university owns five partner research bases with key research institutes of China's Ministry of Education, as well as two state key laboratories. Internationally, the university has established cooperation with more than 100 research institutes around the world.

The focus is now on boosting MUST's reputation as a leader in several strategic areas, including medical science and interdisciplinary research. "Macao has not been famous in the past for medical science, but I think that will change," says Yi Zhun Zhu, chair professor of pharmacology and director of the School of Pharmacy at MUST. Because this is one of the most densely populated regions in China, innovation in medical science and the translation of these innovations is crucial for advancing public health, he says: "We just submitted a first-in-class drug for clinical approval by China FDA. We are working hard to ensure that more research is translated into real-world outcomes. Governments and universities want to see products beyond the research papers."

Having an agile structure supports these ambitions. "Our strategic reorganisation means we have a smart management system that's not the same as some public universities. We can bypass a lot of bureaucracy to achieve a management structure that's fit for purpose," Tam says. Both front-line staff and researchers benefit from structures that allow them to develop their own research interests at speed and leverage the university's investment in technology.

Further interdisciplinary connections are in the pipeline, with plans to establish an institute for the use of artificial intelligence in medicine – something Tam describes as "one of the hottest and most important areas of health and engineering". The institute would look at how AI can



Above top: Academic staff working on a research project on vaccination for SARS-CoV-2 Left: Medical students learning clinical skills in one of MUST's simulation labs Below The 2023 Frontiers in Medicine Summit 2023, hosted by MUST be applied to drug discovery as well as growing areas such as regenerative medicine. "We are establishing a clinical trial centre to enable us to translate lab discoveries into clinical practice and help the industry to set standards and benchmark against both international standards and those in the Bay Area," Tam says.

In addition, MUST competes for local research grants and mainland funding, and has built ties with industry to increase investment in labs and technology to support research and the application of its discoveries. "The platforms and innovation labs we provide offer exciting opportunities for development with industry," Tam explains. "The nature of governance at MUST means we are amenable to developments, led by experienced people who see opportunities in a growth area." This extends to how the Medical Sciences Division attracts and retains talented researchers and academics, with a number of top global scholars choosing to base themselves there. "We want to give them that platform to express themselves," Tam says. "But, at the same time, we're seeing many Macao founders returning from overseas to work with us, and we need to deliver on our promises."

While rankings will help MUST expand its reputation and attract talent across many research areas, this is not the university's main focus. "Being interdisciplinary is at the soul of the university and, as we develop and improve, it's not just about how we perform in the rankings, but how they fit in with our strategic goals," Tam says.

 Image: second second

To find out more about the Medical Sciences Division at Macau University of Science and Technology, visit www.must.edu.mo/en/msd



鼻 門 科 技 大 學 MACAU UNIVERSITY OF SCIENCE AND TECHNOLOGY



Connect

## Research & Innovations for a sustainable Himalayan Ecosystem

Nestled in the Himalayas, Graphic Era (Deemed to be University) has been at the forefront of Research and Innovation aimed at developing a sustainable Himalayan Ecosystem. A multi-pronged approach to solving a host of challenges posed by a very complex ecosystem and the need for rapid development, has led to an interesting mix of research areas being covered and a host of novel ideas and innovations surfacing.



Innovation for Disaster Prevention and Mitigation In Himalayan States

the last



Innovation for Easing Access to Affordable Quality Healthcare in Himalayan States



Use of Technology to Solve Daily Use Problems Cutting Across Domains



Innovation for Indigenous Produce & Global Markets

Graphic Era (Deemed to be University) is a leading Indian University, nestled in the scenic Himalayan valley of Dehradun. The University with its rich academic legacy spanning more than 25 Years has been relentlessly pursuing solutions to Global challenges and contributions towards the development of a sustainable Himalayan Ecosystem is an integral part of that journey.

Ranked 601-800 amongst Top Universities of the World Ranked **301-400** amongst Top Engineering Institutes of the World Ranked **159** in Asia by Times Higher Education Asia University Rankings 2023

Wish to be a part of this transformative journey? Join our efforts by writing to us on innovate@geu.ac.in

For more | www.geu.ac.in

Graphic Era Deemed to be University



tank 2024	ank 2023	nstitution	ountry/region	eaching	tesearch invironment	tesearch quality	ndustry	nternational outlook	Verall score
/01-500	351-/100	Acia University Taiwan	Taiwan	18.3	36.6	21 80.6	63.2	/10.2	15 1-19 0
101 000	401-500	Aston University	United Kingdom	22.2	26.5	82.5	64.1	95.2	45 4-49 0
	251-300	Auckland University of Technology	New Zealand	23.8	21.2	84.0	40.8	92.4	45.4-49.0
	251-300	Australian Catholic University	Australia	16.8	25.7	97.0	21.9	80.7	45.4-49.0
	401-500	Bangor University	United Kingdom	27.6	25.3	72.7	64.3	88.2	45.4-49.0
	501-600	Bauman Moscow State Technical University	Russian Federation	71.7	43.9	22.1	51.7	59.3	45.4-49.0
	251-300	Bond University	Australia	28.2	23.1	82.5	23.1	82.3	45.4-49.0
	251-300	Bournemouth University	United Kingdom	23.2	21.1	86.7	38.4	89.0	45.4-49.0
	351-400	University of Brescia	Italy	24.4	19.2	89.3	62.4	44.9	45.4-49.0
	301-350	Universiti Brunei Darussalam	Brunei Darussalam	28.5	28.9	76.0	22.9	75.7	45.4-49.0
	301-350	University of California, Merced	United States	26.2	23.9	86.8	48.1	55.0	45.4-49.0
	NR	Campus Bio-Medico University of Rome	Italy	32.6	29.0	76.9	48.8	31.0	45.4-49.0
	401-500	University of Catania	Italy	32.4	22.7	81.2	59.0	34.9	45.4-49.0
	501-600	Centrale Nantes	France	40.7	33.4	50.6	81.1	87.8	45.4-49.0
	601-800	University of Central Florida	United States	28.5	34.4	74.7	78.3	39.9	45.4-49.0
	351-400	Charles Darwin University	Australia	24.8	32.5	73.9	36.3	81.6	45.4-49.0
	501-600	Charles University	Czech Republic	38.8	33.1	61.9	60.1	64.7	45.4-49.0
	601-800	Chung-Ang University	South Korea	37.4	38.4	52.0	98.3	62.6	45.4-49.0
	401-500	Claude Bernard University Lyon 1	France	40.3	27.1	65.0	71.3	63.7	45.4-49.0
	601-800	University of Coimbra	Portugal	31.4	38.2	59.9	/8.0	54.3	45.4-49.0
	401-500	Colorado State University, Fort Collins	United States	33.4	31.7	(4.4	69.4	46.6	45.4-49.0
	501-600	Constructor University Bremen	Germany	30.7	35.9	48.9	84.7	93.5	45.4-49.0
	251 400	University of Deleware		31.0	30.0 21.0	72.5	0.00	40.2	40.4-49.0
	301-400 //01_500	Dublin City University	Ireland	52.1 24.5	31.0	77.1	62.8	02.3 73.0	45.4-49.0
	251-300	École des Ponts ParisTech	France	24.J	30.2	55.7	87.2	82.7	45.4-49.0
	501-600	Federal University of Toulouse Midi-Pyrénées	France	29.4	30.2	65.7	70.2	72.6	45.4-49.0
	501-600	Florida International University	United States	31.0	29.3	74.2	61.5	51.0	45.4-49.0
	501-600	University of Fribourg	Switzerland	36.8	33.2	63.2	54.7	83.1	45.4-49.0
	401-500	University of Genoa	Italy	36.1	28.3	78.0	73.4	47.3	45.4-49.0
	301-350	George Mason University	United States	29.7	27.5	82.7	62.0	59.9	45.4-49.0
	401-500	Georgia State University	United States	35.0	25.4	72.6	65.2	57.1	45.4-49.0
	501-600	Goldsmiths, University of London	United Kingdom	29.2	25.2	75.4	28.9	81.0	45.4-49.0
	351-400	University of Greifswald	Germany	35.5	29.9	73.8	60.2	57.1	45.4-49.0
	501-600	University of Guelph	Canada	32.6	36.2	66.2	78.1	64.5	45.4-49.0
	501-600	Gwangju Institute of Science and Technology (GIST)	South Korea	48.5	39.6	50.3	99.9	43.9	45.4-49.0
	401-500	HSE University	<b>Russian Federation</b>	34.4	44.0	57.3	56.5	51.4	45.4-49.0
	501-600	University of Hull	United Kingdom	27.4	24.3	74.3	59.8	85.4	45.4-49.0
	351-400	Imam Mohammad Ibn Saud Islamic University	Saudi Arabia	43.4	23.4	65.8	21.5	69.8	45.4-49.0
	351-400	IMT Atlantique	France	47.5	36.5	43.6	90.5	84.8	45.4-49.0
	401-500	Institut Agro	France	43.8	32.6	60.2	59.6	60.3	45.4-49.0
	501-600	Iran University of Science and Technology	Iran	33.6	37.4	75.2	73.9	24.3	45.4-49.0
	601-800	University of Johannesburg	South Africa	28.6	36.3	66.8	44.8	81.0	45.4-49.0
	501-600	Johannes Kepler University of Linz	Austria	36.8	35.4	58.2	98.7	71.7	45.4-49.0
	401-500	University of Jyvaskyla	Finland	31.4	34.1	/8.2	53.0	49.7	45.4-49.0
	601-800	Universiti Kebangsaan Malaysia	Malaysia	45.7	27.8	58.7	4/.4	74.9	45.4-49.0
	351-400	University of Kentular	United Kingdom	27.6	29.0	71.0	51.9	93.5	45.4-49.0
	001-600	Ving Soud University	Saudi Arobio	41.3	30.8	/1.8	10.9	40.8	45.4-49.0
	601.900	Iniversity of Limerick	Jroland	31.4 07.1	19.9	64.0 64.1	40.7	76.1	45.4-49.0
	401.500	Lincoln University	New Zealand	27.1	26.7	68.4	/0.7	0.1	40.4-49.0 <u>45</u> <u>1</u> <u>10</u> 0
	401-300	LINCOIN ONIVEISILY		55.9	20.7	00.4	49.1	92.0	45.4-45.0

## Implementing sustainable practices at Kuwait University

Kuwait University is actively engaged in the New Kuwait Vision 2035 and is committed to integrating sustainability goals into operations across the university

uwait University (KU) is at the forefront of implementing the New Kuwait Vision 2035, which seeks to transform Kuwait into a financial and trading hub underpinned by a sustainable and diversified economy with high-quality living environments, modern infrastructure and universal healthcare.

The university supports Kuwait's vision of a sustainable and prosperous nation by actively contributing to its development and addressing global sustainability challenges. KU's strategic plan aligns with the pillars of the New Kuwait Vision 2035 and the United Nations' Sustainable Development Goals (SDGs), with a focus on environmental leadership, education and research, capacity building and community engagement.

KU has recently built a new campus in Sabah Al-Salem University City, one of the largest educational campuses in the world, with an approximate area of six square kilometres. The new site prioritises sustainability by incorporating environmentally friendly design principles, renewable energy systems, green spaces and optimised resource management into every aspect of its design.

"The new campus is a symbol of Kuwait's commitment to a knowledge-based society," says Meshari Al-Harbi, vice-president for planning at the university. Besides modern architecture and advanced technology, the city offers a range of facilities to support teaching and research in various disciplines, fostering multidisciplinary collaborations and a vibrant campus life with a focus on excellence, research and innovation.

Sustainability is at the centre of KU's campus operations. The university employs an array of alternative energy techniques and strategies to reduce its carbon footprint. Additionally, advanced methods are used to minimise water consumption, and a district cooling system with heat exchangers and thermal energy storage tanks is in place. The university is dedicated to educating its stakeholders in order to reduce its environmental impact.

"The initiatives and research efforts at KU align the SDGs with the local culture, with special emphasis on interdisciplinary research projects with humanities and social studies. We can export these ideas and help other universities in the region adopt them," says Haitham Lababidi, a professor in the chemical engineering department at the university.

KU is currently working towards achieving accreditation as a healthy city in partnership with the World Health Organization's (WHO) Healthy Cities initiative, in collaboration with Kuwait's Ministry of Health. The university is making efforts to integrate WHO-recommended methods and designs into KU's facilities to comply with the organisation's standards. To finalise accreditation, KU has signed a memorandum of understanding with the Ministry of Health to convert Sabah Al-Salem University City into a healthy city.

In line with the healthy city goals, the university is also working to increase the number of research projects and patents it produces by launching a fast-track patent service for faculty and students.

Nurturing the next generation of environmentally conscious engineers and professionals is another strategy KU has adopted to further its commitment to sustainability. A recent initiative run by the College of Engineering and Petroleum identified the sustainability contributions of final-year students' projects, highlighting the college's commitment to integrating sustainability into curricula. Meanwhile, the College of Social Sciences at KU and a European Union delegation to Kuwait organised an event called the Role of Women in Environmental Policies in Kuwait, where three KU students were awarded the title of Women and Environment Ambassadors for their study on climate change and the role of women in policymaking in Kuwait. By recognising the talents of this young generation, KU is playing a vital role in developing the changemakers of the future.

#### To find out more about Kuwait University, visit kuweb.ku.edu.kw



24	23	E	/region		h ient	h quality		ional outlook	core
ank 20	Rank 20	nstitutio	20untry/	eaching	Researcl Sevironn	Researc	ndustry	nternati	Dverall s
401-500	501-600	 University of Lisbon	Portugal	29.6	38.0	69.9	64 7	56.9	45 4-49 0
(cont)	401-500	University of Marburg	Germany	36.7	31.4	68.8	63.1	62.3	45.4-49.0
( 7	401-500	Maynooth University	Ireland	21.1	30.7	77.0	58.3	74.8	45.4-49.0
	501-600	Missouri University of Science and Technology	United States	33.2	28.7	69.6	88.1	72.4	45.4-49.0
	601-800	Mizzou – University of Missouri	United States	40.6	26.0	66.0	69.9	53.6	45.4-49.0
	401-500	University of Modena and Reggio Emilia	Italy	32.0	24.6	79.6	80.3	40.2	45.4-49.0
	401-500	National Research Nuclear University MEPhI	<b>Russian Federation</b>	53.1	41.0	42.4	57.5	78.8	45.4-49.0
	601-800	National Taiwan University of Science and Technology (Taiwan Tech)	Taiwan	33.2	36.9	63.8	93.2	56.4	45.4-49.0
	501-600	National Tsing Hua University	Taiwan	38.9	42.3	58.4	99.5	46.2	45.4-49.0
	501-600	National Yang Ming Chiao Tung University	Taiwan	44.0	44.3	52.9	99.9	41.4	45.4-49.0
	401-500	University of Nebraska-Lincoln	United States	33.8	31.1	71.5	67.0	65.9	45.4-49.0
	501-600	University of Neuchâtel	Switzerland	31.8	26.4	67.2	53.5	85.9	45.4-49.0
	601-800	New Jersey Institute of Technology	United States	27.4	23.5	69.2	69.8	93.6	45.4-49.0
	NR	University of Oregon	United States	31.1	30.5	79.4	70.2	43.2	45.4-49.0
	401-500	University of Passau	Germany	31.5	36.5	66.5	62.2	58.2	45.4-49.0
	401-500	University of Pisa	Italy	31.1	31.2	80.5	68.7	43.2	45.4-49.0
	401-500	University of Plymouth	United Kingdom	24.4	21.9	79.5	66.1	80.6	45.4-49.0
	601-800	Polytechnic University of Turin	Italy	29.7	30.2	13.5	85.8	53.2	45.4-49.0
	401-500	Ponuncia Universidad Catolica de Chile	Chile	29.7	34.3	07.0	84.7	57.9	45.4-49.0
	401-500	University of Portemouth	Portugal	31.3	35.4	/1.1 0/ 5	00.3	57.9 04.7	45.4-49.0
	401-300 ND	Drince Sultan University (DSU)	Saudi Arabia	20.0	20.0	04.0 97.0	40.0	94.7	45.4-49.0
	INK /01-500		Dakistan	20.7	20.3	01.0 8/1.0	31.0 22.0	00.0 53.7	45.4-49.0
	401-500	Université du Québec	Canada	29.1	24.1	57 2	22.9 71 5	7/1 3	45.4-49.0
	601-800	Ranssalaar Polytechnic Institute	United States	3/1 1	30.0	60.9	80.0	74.3	45.4-49.0
	351-400	Royal Veterinary College	United Kingdom	30.0	20.7	75.6	61.1	95.1	45.4-49.0
	601-800	Iniversiti Sains Malaysia	Malavsia	42 Q	20.1	60.0	53.7	71.9	45.4-49.0
	301-350	Saint Louis University	United States	41 1	16.3	80.9	60.6	42.0	45 4-49 0
	501-600	SOAS University of London	United Kingdom	42.5	36.1	60.2	15.6	80.4	45 4-49 0
	501-600	University of South Carolina-Columbia	United States	35.9	24.6	75.1	63.4	59.2	45.4-49.0
	501-600	Stevens Institute of Technology	United States	26.9	25.3	74.6	62.4	80.8	45.4-49.0
	351-400	University of Stirling	United Kingdom	23.0	26.2	82.4	41.0	91.4	45.4-49.0
	401-500	Sumy State University	Ukraine	24.3	13.5	68.9	20.0	63.2	45.4-49.0
	401-500	Syracuse University	United States	33.8	28.2	73.3	72.7	56.5	45.4-49.0
	301-350	Taipei Medical University	Taiwan	47.4	32.6	60.9	85.1	48.5	45.4-49.0
	601-800	University of Tehran	Iran	37.7	28.4	71.9	60.5	33.6	45.4-49.0
	601-800	Universiti Teknologi Malaysia	Malaysia	44.1	29.3	65.0	55.0	71.5	45.4-49.0
	501-600	Tokyo Medical and Dental University (TMDU)	Japan	46.7	31.3	53.4	99.0	39.0	45.4-49.0
	501-600	TU Dortmund University	Germany	35.7	42.2	62.3	72.0	57.3	45.4-49.0
	351-400	Tulane University	United States	42.9	24.4	73.1	67.8	50.7	45.4-49.0
	401-500	University of Turin	Italy	23.0	30.1	84.5	74.4	45.5	45.4-49.0
	401-500	Umeå University	Sweden	26.0	33.5	80.2	60.6	64.9	45.4-49.0
	401-500	Universiti Utara Malaysia	Malaysia	38.4	27.6	69.7	28.1	78.7	45.4-49.0
	351-400	University of Vaasa	Finland	22.0	27.7	90.3	39.5	65.3	45.4-49.0
	351-400	Verona University	Italy	29.6	26.2	84.1	67.0	46.0	45.4-49.0
	501-600	Victoria University	Australia	27.4	29.9	73.1	57.2	75.5	45.4-49.0
	401-500	Victoria University of Wellington	New Zealand	28.6	34.1	69.4	58.4	80.3	45.4-49.0
	501-600	Virginia Commonwealth University	United States	36.4	23.2	82.8	72.7	36.5	45.4-49.0
	401-500	University of Waikato	New Zealand	26.1	31.0	/4.3	(2.4	89.8	45.4-49.0
	351-400	wake Forest University	United States	39.6	22.0	80.6	/8.5	38.7	45.4-49.0
	501-600	Zayed University	United Arab Emirates	28.3	25.4	85.7	35.0	74.5	45.4-49.0

# Can Al help discover your next antibiotic?

Antibiotic resistance is responsible for more than 1.2 million deaths per year.

That's why Jon Stokes and his students are using artificial intelligence to accelerate the identification of new antibiotics to fight drug-resistant bacteria.



Watch to learn how the Stokes Lab used AI to discover a new antibiotic.



Times Higher Education Impact Rankings 2023 TOP 40

**Gary Liu,** graduate student Jon Stokes, Assistant Professor, Biochemistry & Biomedical Sciences

### BRIGHTER WORLD





A

Denise Catacutan, graduate student

### GRIFFITH UNIVERSITY

#### **Queensland Australia**



## Here, you can make it matter

"With support from Griffith, the impact of my research has gone further and reached more people with direct positive impact on patient lives."

As we prepare for our 50th anniversary in 2025, we're making a serious investment in the future. We're seeking to recruit 100 early to mid-career researchers to build on our existing strengths and help us in our mission to create a brighter future for all.

Here, you'll find a community that is united by values and built on justice, sustainability and inclusivity.

#### griffith.edu.au/join-us



Young University Rankings 2023: **Top 50** Impact Rankings 2023 (UN Sustainable Development Goals): **Top 100** 

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
501-600	501-600	Aberystwyth University	United Kingdom	26.3	23.0	68.5	62.4	87.3	41.9-45.3
	601-800	Åbo Akademi University	Finland	29.5	31.6	59.3	67.1	68.1	41.9-45.3
	601-800	Ajou University	South Korea	35.6	37.7	52.8	92.3	48.0	41.9-45.3
	401-500	University of Alaska Fairbanks	United States	34.5	31.0	63.1	47.5	70.1	41.9-45.3
	301-350	Alfaisal University	Saudi Arabia	24.1	15.2	72.7	42.1	97.7	41.9-45.3
	351-400	American University of Beirut	Lebanon	29.7	17.9	73.5	66.0	72.9	41.9-45.3
	301-350	Anglia Ruskin University (ARU)	United Kingdom	20.2	16.3	84.8	19.0	94.2	41.9-45.3
	801-1,000	Anna University	India	32.0	26.3	72.4	51.0	20.4	41.9-45.3
	501-600	University of L'Aquila	Italy	32.1	22.8	73.2	70.9	36.4	41.9-45.3
	601-800	Auburn University	United States	36.0	25.7	59.6	69.3	57.7	41.9-45.3
	401-500	Babol Noshirvani University of Technology	Iran	21.5	21.5	94.4	28.4	25.3	41.9-45.3
	601-800	Bar-Ilan University	Israel	30.0	34.1	54.1	85.8	46.8	41.9-45.3
	601-800	Beirut Arab University	Lebanon	48.5	24.6	47.3	18.6	88.2	41.9-45.3
	601-800	Ben-Gurion University of the Negev	Israel	34.1	30.6	59.0	71.6	34.5	41.9-45.3
	501-600	University of Bradford	United Kingdom	23.3	22.4	73.8	58.1	90.1	41.9-45.3
	251-300	Brighton and Sussex Medical School	United Kingdom	26.6	22.0	74.4	37.8	93.1	41.9-45.3
	601-800	Ca' Foscari University of Venice	Italy	34.2	36.3	52.8	64.7	63.0	41.9-45.3
	801-1,000	University of Calabria	Italy	34.9	19.5	69.6	47.4	43.2	41.9-45.3
	601-800	University of Canterbury	New Zealand	28.6	30.9	62.4	68.2	85.1	41.9-45.3
	601-800	Carleton University	Canada	22.6	31.2	67.0	75.5	77.2	41.9-45.3
	601-800	Central Queensland University	Australia	19.7	26.7	76.0	39.5	65.3	41.9-45.3
	801-1,000	China University of Petroleum, Beijing	China	31.6	37.5	56.6	81.8	30.1	41.9-45.3
	401-500	Complutense University of Madrid	Spain	40.3	29.4	58.8	52.1	46.7	41.9-45.3
	601-800	Concordia University	Canada	25.7	29.3	66.2	66.3	86.6	41.9-45.3
	501-600	University of Cote d'Azur	France	28.4	22.0	65.6	62.4	80.6	41.9-45.3
	401-500	University of Crete	Greece	19.9	25.7	/6.5	64.5	47.4	41.9-45.3
	401-500	University of Cyprus	Cyprus	22.5	25.8	75.3	64.3	11.1	41.9-45.3
	401-500	University of Denver	United States	39.9	24.3	64.2	55.8	31.2	41.9-45.3
	801-1,000	Dongnua University	China	21.8	22.1	12.8	85.3	39.9 40 E	41.9-45.3
	401 500	University Of Edstern Finianu	Fillidilu	20.9	31.Z	77.0	07.4	46.0	41.9-40.3
	401-300	Eulinbulgh Napler University	Eronoo	20.4	10.4	11.9	41.1	93.1	41.9-40.5
	401 500	LINSIA Dieldgile	Italy	39.4 20.6	20.0	40.1	70.0 66.0	00.9	41.9-40.5
	601-800	University of Granada	Spain	29.0	24.9	65.7	52 2	44.7 52.6	41.9-45.3
	601-800	University of Graz	Austria	20.5	20.0	66.9	51.2	92.0 81 3	41.9-45.3 /1 0_/15 3
	601-800	Graz University of Technology	Austria	40.4	21.0	51 5	91.2	81.5	41.0 45.3
	501-600	Iniversity of Greenwich	United Kingdom	17.8	17.5	81.2	40.9	97.2	41 9-45 3
	601-800	Hamburg University of Technology	Germany	37.6	24.5	53.0	79.5	61.4	41 9-45 3
	601-800	Iniversity of Houston	United States	33.8	29.7	65.8	70.2	50.8	41 9-45 3
	601-800	University of Huddersfield	United Kingdom	28.3	25.0	66.3	44.4	88.4	41 9-45 3
	501-600	University of Iceland	Iceland	23.4	34.0	70.6	75.6	55.8	41.9-45.3
	601-800	Istanbul Technical University	Turkey	35.8	36.6	51.8	87.3	45.8	41.9-45.3
	501-600	Jamia Millia Islamia	India	41.1	14.4	75.7	37.5	39.7	41.9-45.3
	601-800	Jinan University	China	25.9	22.8	73.5	43.6	63.1	41.9-45.3
	501-600	Keele University	United Kingdom	21.5	24.6	73.3	66.1	81.3	41.9-45.3
	801-1.000	King Khalid University	Saudi Arabia	29.8	20.1	70.3	48.6	91.0	41.9-45.3
	401-500	University of Klagenfurt	Austria	31.2	19.4	72.4	48.1	87.6	41.9-45.3
	401-500	University of KwaZulu-Natal	South Africa	31.5	34.8	63.7	39.7	55.9	41.9-45.3
	801-1,000	Kyungpook National University	South Korea	33.2	38.1	51.5	96.2	50.2	41.9-45.3
	501-600	Lebanese American University	Lebanon	26.7	13.2	76.4	32.8	84.2	41.9-45.3
	351-400	Leuphana University of Lüneburg	Germany	25.5	22.9	85.3	25.8	59.8	41.9-45.3



#### KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

#### **Deemed to be University**

(Established U/S 3 of UGC Act, 1956, Bhubaneswar, Odisha, India)



KIIT is among India's most sought-after universities, attracting students from all over India and more than 65 countries to pursue professional and technical education. It has built its reputation as the most student-friendly university, anchored on the principles of Compassion and Humanity, and is on its way to become an international hub for quality professional and technical education.













#### NATIONAL & INTERNATIONAL RECOGNITION

**KIIT** is a member of prestigious national and international organizations such as International Association of Universities (IAU), Association of Indian Universities (AIU), Association of Commonwealth Universities (ACU), University Mobility of Asia and the Pacific (UMAP), Association of Universities of Asia and the Pacific (AUAP), United Nations Academic Impact (UNAI) and Eurasian Silk Road Universities Consortium (ESRUC).

SCHO	OLS
<ul> <li>School of Civil Engineering</li> </ul>	<ul> <li>School of Film &amp; Media Sciences</li> </ul>
<ul> <li>School of Mechanical Engineering</li> </ul>	<ul> <li>School of Mass Communication</li> </ul>
<ul> <li>School of Electrical Engineering</li> </ul>	<ul> <li>School of Applied Sciences</li> </ul>
<ul> <li>School of Electronics Engineering</li> </ul>	<ul> <li>School of Management</li> </ul>
<ul> <li>School of Computer Engineering</li> </ul>	School of Rural Management
<ul> <li>School of Chemical Technology</li> </ul>	School of Social Financial
<ul> <li>School Computer Applications</li> </ul>	& Human Sciences
<ul> <li>School of Architecture &amp; Planning</li> </ul>	<ul> <li>School of Languages</li> </ul>
<ul> <li>School of Biotechnology</li> </ul>	<ul> <li>School of Spiritualism &amp; Yogic Sciences</li> </ul>
<ul> <li>School of Public Health</li> </ul>	<ul> <li>Kalinga Institute of Medical Sciences</li> </ul>
School of Law	<ul> <li>Kalinga Institute of Dental Sciences</li> </ul>
School of Fashion Technology	<ul> <li>Kalinga Institute of Nursing Sciences</li> </ul>
23 world class campuses spread over	23 schools offering
25 sq. km. of area	200+ academic programmes
2000 familta 9 varaavahava 9	Academic partnership with over 350
<b>3000</b> faculty & researchers &	International Universities across
40,000 students	the globe
KIIT, At/PO-KIIT, Bhubaneswar-751024, Odi Email : kiit@kiit.ac.in, W	sha, INDIA, Tel. : +91 674 2725113, 2741998 /ebsite : www.kiit.ac.in
KIIT (Deemed to be University) has only one	permanent campus in Bhubaneswar, O <u>disha.</u>
It has no other campus / off campus an	where else in the country and globe.

ank 2024	ank 2023	stitution	ountry/ region	aching	esearch mvironment	esearch quality	ndustry	iternational outlook	verall score
E01 C00	401 E00	E University of Lincoln	O United Kingdom	10.0		2000 2000	- 24.7	20.0	0 41 0 45 2
(cont)	401-500	University of Eniconn	United Kingdom	19.9	10.7	82.2 77.7	24.7	83.0	41.9-45.3
(cont)	401-500	Mahatma Gandhi University		21.0	28.1	62.3	33.4 33.2	28.1	41.9-45.3
	601-800	Manchester Metropolitan University	Inited Kingdom	20.5	18 5	02.3 77 4	57.7	80.6	41.0-45.3
	601-800	Massey University	New Zealand	20.3	28.2	60.5	77.6	87.5	41 9-45 3
	601-800	Memorial University of Newfoundland	Canada	27.5	24.5	60.9	83.2	85.7	41.9-45.3
	501-600	University of Messina	Italy	30.5	25.3	79.1	59.5	34.1	41.9-45.3
	401-500	Middlesex University	United Kingdom	22.8	18.5	80.0	46.8	93.4	41.9-45.3
	501-600	University of Mons	Belgium	24.8	32.5	63.9	64.0	71.5	41.9-45.3
	601-800	Nantes Université	France	29.2	25.2	67.2	64.1	55.0	41.9-45.3
	601-800	National Cheng Kung University (NCKU)	Taiwan	35.4	39.2	47.2	100.0	40.8	41.9-45.3
	401-500	National and Kapodistrian University of Athens	Greece	22.6	23.9	77.3	89.8	56.6	41.9-45.3
	801-1,000	National Taiwan Normal University	Taiwan	35.0	32.0	51.4	92.7	50.4	41.9-45.3
	601-800	National Yunlin University of Science and Technology	Taiwan	20.5	27.3	74.6	69.1	43.2	41.9-45.3
	NR	Nazarbayev University	Kazakhstan	25.4	29.5	65.9	40.4	74.3	41.9-45.3
	401-500	University of Nebraska Medical Center	United States	36.9	16.4	77.8	66.1	41.3	41.9-45.3
	501-600	University of Nicosia	Cyprus	22.6	21.0	76.1	26.3	91.2	41.9-45.3
	501-600	Northumbria University	United Kingdom	21.5	22.7	75.8	40.4	90.0	41.9-45.3
	501-600	Nottingham Trent University	United Kingdom	20.7	14.3	84.6	37.3	88.5	41.9-45.3
	601-800	NOVA University of Lisbon	Portugal	29.5	33.7	61.5	71.5	62.0	41.9-45.3
	601-800	Polytechnic University of Bari	Italy	23.0	27.6	76.9	59.9	42.5	41.9-45.3
	801-1,000	University of Pretoria	South Africa	31.2	34.3	56.7	69.9	61.4	41.9-45.3
	1,001-1,200	Pusan National University	South Korea	39.2	39.1	45.1	86.6	37.8	41.9-45.3
	601-800	Universiti Putra Malaysia	Malaysia	36.0	30.5	51.2	64.9	80.7	41.9-45.3
	601-800	Rovira i Virgili University	Spain	27.4	24.3	68.1	49.7	58.9	41.9-45.3
	351-400	Rush University	United States	41.3	14.2	78.0	56.0	28.9	41.9-45.3
	501-600	University of Salerno	Italy	21.9	24.4	79.2	52.4	37.4	41.9-45.3
	501-600	Sciences Po	France	32.4	25.6	60.1	17.2	84.6	41.9-45.3
	601-800	Shanghai University	China	31.8	38.0	62.7	/1.3	42.9	41.9-45.3
	501-600	Shiraz University of lechnology	Iran	37.0	22.8	11.1	32.6	33.7	41.9-45.3
	351-400	Shoolini University of Biotechnology and Management Sciences	India	27.0	17.9	85.2	11.1	10.0	41.9-45.3
	401-500	University of Steria	China	25.0	25.0	75.9	74.9	48.7	41.9-45.3
	601 900	Southern Croce University	Cililia	21.1	24.3	19.8	10.0	30.0 72.7	41.9-40.3
	601-800	Juniversity of the Sunchine Coast	Australia	23.0	21.1	70.2	37.3	60.1	41.9-45.3
	601-800	University of the Sunshine Coast	Iran	20.5	21.1	80.1	/13.1	/0.8	41.9-45.3 /1 0_/15 3
	601-800	Tabriz University of Medical Sciences	Iran	43.0	15.1	73.1	29.9	30.2	41.9-45.3
	601-800	Taif University	Saudi Arabia	18.3	17.8	84 1	20.9	75.6	41 9-45 3
	601-800	The University of Texas at San Antonio	United States	21.0	22.5	79.2	63.6	42.8	41.9-45.3
	601-800	Tomsk State University	Russian Federation	49.2	40.0	31.8	53.8	79.1	41.9-45.3
	501-600	University of Trieste	Italy	31.9	25.1	74.2	52.3	52.0	41.9-45.3
	601-800	TU Braunschweig	Germany	34.5	24.0	61.5	77.0	60.6	41.9-45.3
	401-500	The University of Tulsa	United States	36.1	17.2	71.9	52.9	44.6	41.9-45.3
	501-600	UIT The Arctic University of Norway	Norway	27.7	22.1	68.8	54.0	65.6	41.9-45.3
	601-800	University of Ulsan	South Korea	29.4	26.6	69.0	86.6	25.2	41.9-45.3
	501-600	University of Valencia	Spain	28.9	25.6	75.7	58.2	49.2	41.9-45.3
	501-600	Wayne State University	United States	36.4	20.4	70.2	79.3	41.8	41.9-45.3
	401-500	University of the West of England	United Kingdom	19.5	15.0	82.6	30.2	78.6	41.9-45.3
	601-800	University of Windsor	Canada	28.7	29.8	56.7	60.7	90.8	41.9-45.3
	601-800	University of Wuppertal	Germany	29.8	29.8	67.3	64.6	55.0	41.9-45.3
	801-1,000	Yangzhou University	China	32.8	24.6	64.9	66.7	54.0	41.9-45.3



We are The University of Warwick.

Born in the 60s, with a mindset of boldness, imagination and collaboration, we've always been a forward-facing organisation.

Our founding ethos makes us who we are today... a diverse, innovative and globally-connected university with the highest academic and research standards.

Currently ranked 67<sup>th</sup> in the world and 10<sup>th</sup> in the UK<sup>\*</sup>, 92% of our research has been assessed as 'world leading' or 'internationally excellent'<sup>\*\*</sup>.

#### Together, we can lead the world through a future of change.

As the world faces a future of faster, more profound change, with all the possibilities, pressures and uncertainty that brings, the role of higher education will be more vital than ever.

We do what we do at Warwick because, even in the face of all this uncertainty, we believe we all have it in us to find the answers and make a better world.

#### Together, we can ignite progress in the real world. Be a part of the journey.



Scan here or visit **warwick.ac.uk** to find out more.

\* QS World University Rankings 2024

\*\* Research Excellence Framework 2021







## **TOP TEN IN THE WORLD FOR FIVE YEARS RUNNING**

Our commitment to achieving the UN Sustainable Development Goals is unmatched. We're the only university in the world to rank in the top ten for social and environmental impact in every year of the *Times Higher Education* Impact Rankings. In 2023 we ranked first in Europe and second in the world.

visit manchester.ac.uk/sdgs





ank 2024	ank 2023	stitution	ountry/region	aching	esearch wironment	esearch quality	dustry	ternational outlook	verall score
22 CO4 000	22 001_000	E Abdullati Khan Universite Mandan	<b>O</b>	<u>ب</u>		<u>∽</u>		<u> </u>	
001-900	008-100	Abdul wall khan University Mardan	Pakistan	18.4	12.0	8U.4	21.8	49.0	37.0-41.8
	NK	Air University	Pakistan	24.2	12.5	81.5 E0.6	39.5	48.7	37.0-41.8
	801-1,000	The University of Alabama	Japan United States	20.0	13.0 21.2	50.0 64.4	05.7	20.2	27.0 /1.9
	401 500		India	20.0	10.0	64.4	40.0	39.3	27.0 /11.0
	801-1 000	Aligarh Muslim University	India	/11 1	12.0	61.6	23.2	28.2	37.0-41.0
	601-1,000	Amedeo Avogadro University of Fastern Piedmont	Italy	12.7	23.5	71.3	47 1	48.2	37.0-41.8
	601-800	American University	United States	35.2	17.1	57.2	38.5	46.5	37.0-41.8
	601-800	American University of Shariah	United Arab Emirates	24 5	26.3	57.9	27.9	88.6	37.0-41.8
	601-800	Iniversity of Arkansas	United States	21.0	30.5	62.6	67.3	36.2	37 0-41 8
	801-1 000	University of Aveiro	Portugal	27.1	30.2	57.3	48.1	48.6	37 0-41 8
	401-500	Babol University of Medical Sciences	Iran	41.7	12.0	70.5	18.0	21.0	37.0-41.8
	601-800	Banaras Hindu University	India	47.2	16.4	66.4	26.8	25.0	37.0-41.8
	601-800	University of Bari Aldo Moro	Italy	19.8	21.8	78.3	57.8	37.5	37.0-41.8
	801-1.000	University of the Basque Country	Spain	27.0	23.9	65.8	65.5	46.2	37.0-41.8
	601-800	Baylor University	United States	39.2	19.7	61.3	54.8	38.6	37.0-41.8
	801-1,000	University of Beira Interior	Portugal	20.1	22.2	65.4	36.7	52.3	37.0-41.8
	801-1,000	Bharathiar University	India	36.7	32.6	48.0	34.6	31.1	37.0-41.8
	801-1,000	Bilkent University	Turkey	27.8	26.0	48.8	91.4	70.0	37.0-41.8
	501-600	Birmingham City University	United Kingdom	17.3	11.8	77.8	23.2	81.9	37.0-41.8
	801-1,000	Boğaziçi University	Turkey	26.1	26.6	57.4	59.6	50.6	37.0-41.8
	601-800	University of Campania Luigi Vanvitelli	Italy	25.6	9.6	79.0	47.7	31.6	37.0-41.8
	401-500	Cankaya University	Turkey	14.0	15.4	83.4	17.0	51.0	37.0-41.8
	351-400	University of Cape Coast	Ghana	16.5	23.8	71.0	44.6	46.9	37.0-41.8
	601-800	Capital Medical University	China	35.9	20.9	65.8	46.0	26.4	37.0-41.8
	NR	Capital University of Science and Technology	Pakistan	13.4	16.1	82.0	22.2	46.6	37.0-41.8
	NR	The Catholic University of America	United States	44.4	20.0	45.6	68.7	51.7	37.0-41.8
	1,201-1,500	The Catholic University of Korea	South Korea	30.7	38.7	42.9	89.9	36.2	37.0-41.8
	1,001-1,200	Chang Gung University	Taiwan	26.5	34.6	47.2	95.5	28.5	37.0-41.8
	801-1,000	Chulalongkorn University	Thailand	36.7	32.2	50.2	76.6	44.1	37.0-41.8
	601-800	Clark University	United States	26.6	20.8	66.8	54.0	70.5	37.0-41.8
	601-800	COMSATS University Islamabad	Pakistan	17.9	16.6	88.2	30.5	50.0	37.0-41.8
	601-800	University of Córdoba	Spain	27.0	19.9	62.6	41.9	52.3	37.0-41.8
	801-1,000	Coventry University	United Kingdom	20.9	14.9	69.6	26.8	95.6	37.0-41.8
	601-800	Cyprus University of Technology	Cyprus	29.4	19.1	63.3	21.9	71.2	37.0-41.8
	1,001-1,200	University of Debrecen	Hungary	41.2	22.5	40.7	51.1	59.7	37.0-41.8
	601-800	De Montfort University	United Kingdom	17.8	15.1	71.0	45.0	93.9	37.0-41.8
	601-800	University of Derby	United Kingdom	18.5	12.8	71.8	26.5	75.0	37.0-41.8
	401-500	Duy Tan University	Vietnam	12.1	14.2	87.5	17.4	52.5	37.0-41.8
	1,001-1,200	East China University of Science and Technology	China	29.9	25.8	60.2	87.1	23.2	37.0-41.8
	501-600	Eastern Mediterranean University	Northern Cyprus	26.0	15.2	73.8	35.9	75.5	37.0-41.8
	1,001-1,200	Ecole Centrale de Lyon	France	36.0	25.7	32.6	82.5	79.2	37.0-41.8
	501-600	Ecole des Mines de Saint-Etienne	France	44.3	31.4	34.5	17.3	/0.6	37.0-41.8
	801-1,000	Ecole Nationale des Iravaux Publics de l'État (ENTPE)	France	32.1	37.0	31.3	80.8	67.7	37.0-41.8
	NR	Egypt-Japan University of Science and Technology (E-JUST)	Egypt	34.2	27.6	62.4	27.7	51.5	37.0-41.8
	601-800	University of Engineering and Technology, Taxila	Pakistan	16.4	12.8	82.6	1/.1	48.5	37.0-41.8
	1,001-1,200	Universidade Estaduai Paulista (Unesp)	Brazil	41.5	33.1	38.1	40.5	38.6	37.0-41.8
	801-1,000	ewild womans university	South Korea	37.6	35.3	44.5	82.8	49.6	37.0-41.8
	601.000	reueral University of Ki0 de Janeiro	DIdZII	41.8	30.0	30.7	81.0	35.9	37.0-41.8
	001-200		DIdZII	30.4	22.0	54.1	52.9	34.1	57.0-41.8



Y OF SHARJAH

11 4 14 5

688

جــامعــة الـشــارقــة UNIVERSITY OF SHARJAH

### 25 YEARS OF MOVING FORWARD WHERE WE STARTED, WHERE WE ARE NOW. THE UNIVERSITY OF SHARJAH, UAE.

The University of Sharjah was established in 1997 starting with only 4 colleges and 15 undergraduate programs. Over the years, the university has expanded and grown to where it stands now with 14 colleges and over 126 undergraduate and postgraduate programs. This growth is a result of years of hard work and dedication of all of the University's family, from students to faculty and administrative staff towards our goal of becoming a multidisciplinary university.

At the University of Sharjah, we aspire to be able to provide all programs and specialties that our people and community need and look for. We have taken big steps towards that and we are yet to take more.

14

Colleges

57 Bachelor Programs

Post Graduate & Professional Diplomas

Masters Programs

49

17

Doctorate Programs

All UOS programs are nationally and internationally accredited



MAKING A DIFFERENCE TOGETHER f ♥ ◎ ▶ in | @USharjah www.sharjah.ac.ae

Rank 2024	Rank 2023	Institution	Country/ region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
601-800	601-800	Federation University Australia	Australia	20.9	17.2	71.3	41.7	85.8	37.0-41.8
(cont)	801-1,000	University of Foggia	Italy	24.3	24.7	65.5	30.6	30.3	37.0-41.8
	601-800	Gabriele d'Annunzio University	Italy	16.3	18.3	71.7	59.9	40.6	37.0-41.8
	601-800	Glasgow Caledonian University	United Kingdom	20.7	13.9	66.7	46.1	75.6	37.0-41.8
	501-600	Government College University Faisalabad	Pakistan	20.8	15.0	83.4	32.7	48.2	37.0-41.8
	801-1,000	Guangdong University of Technology	China	17.2	19.3	79.6	63.5	28.4	37.0-41.8
	601-800	Hacettepe University	Turkey	32.5	26.8	50.4	73.5	27.5	37.0-41.8
	601-800	University of Haifa	Israel	23.9	30.1	68.4	64.5	34.5	37.0-41.8
	351-400	University of Hail	Saudi Arabia	22.1	10.5	72.3	23.5	76.8	37.0-41.8
	501-600	Harokopio University of Athens	Greece	25.1	27.4	72.9	37.4	41.1	37.0-41.8
	601-800	University of Hertfordshire	United Kingdom	18.6	13.4	67.2	33.9	91.6	37.0-41.8
	801-1,000	Hiroshima University	Japan	39.6	26.4	44.7	68.5	51.5	37.0-41.8
	601-800	Imam Abdulranman Bin Faisal University	Saudi Arabia	21.1	13.9	70.6	20.8	15.3	37.0-41.8
	NR	Imam Knomeini International University	Iran	30.6	19.6	72.4	26.7	26.9	37.0-41.8
	1,001-1,200	Indian Institute of Technology Guwanati	India	35.5	24.1	52.0	49.5	28.0	37.0-41.8
	201 1 000	Indian Institute of Technology (Indian School of Milles) Dilandau	IIIUIa	31.0	24.1	09.7 70.6	30.0	10.4	37.0-41.8
	501-600		Illuid	33.2 10.7	24.1	20.0 80.4	19.0	22.3 12.1	37.0-41.0
	501-600	International Institute of Information Technology, Hyderahad	India	26.0	22.1	71 7	43.2	42.4 39.5	37.0-41.8
	601-800	Iran University of Medical Sciences	Iran	48.2	16.4	54.5	39.1	38.3	37.0-41.8
	801-1.000	ISCTE-University Institute of Lisbon	Portugal	26.4	35.7	56.3	55.2	53.0	37.0-41.8
	1.001-1.200	Isfahan University of Technology	Iran	21.5	26.5	62.0	75.2	33.0	37.0-41.8
	801-1.000	ITMO University	Russian Federation	34.0	34.9	40.0	69.0	67.1	37.0-41.8
	601-800	Jagiellonian University	Poland	38.4	29.0	55.7	46.7	43.4	37.0-41.8
	601-800	Jamia Hamdard University	India	21.1	15.0	74.8	40.4	41.9	37.0-41.8
	601-800	Jawaharlal Nehru University	India	41.9	24.3	51.8	33.9	23.7	37.0-41.8
	601-800	Jiangsu University	China	25.6	14.1	77.5	51.1	55.1	37.0-41.8
	601-800	Jönköping University	Sweden	20.1	19.2	78.3	28.2	65.7	37.0-41.8
	601-800	The University of Jordan	Jordan	27.8	13.4	62.7	30.8	67.1	37.0-41.8
	601-800	Jouf University	Saudi Arabia	30.5	18.3	58.3	21.3	76.7	37.0-41.8
	801-1,000	Juntendo University	Japan	37.6	17.1	59.3	81.4	25.3	37.0-41.8
	601-800	University of Kaiserslautern	Germany	38.7	28.7	44.4	83.0	56.7	37.0-41.8
	801-1,000	Kansas State University	United States	32.9	20.9	57.4	66.9	57.5	37.0-41.8
	601-800	University of Kashan	Iran	27.1	19.9	74.7	21.9	24.8	37.0-41.8
	501-600	Kashan University of Medical Sciences and Health Services	Iran	32.9	15.0	75.6	17.4	25.3	37.0-41.8
	801-1,000	Keio University	Japan	36.9	27.0	49.2	73.3	38.4	37.0-41.8
	601-800	KIIT University	India	38.5	15.8	61.5	52.0	39.4	37.0-41.8
	601-800	King Saud bin Abdulaziz University for Health Sciences	Saudi Arabia	40.8	21.7	43.6	36.1	64.4	37.0-41.8
	801-1,000	Kobe University	Japan	39.5	27.2	48.1	75.4	39.0	37.0-41.8
	601-800	Konkuk University	South Korea	32.2	37.6	49.1	13.1	45.0	37.0-41.8
	351-400	Kurdistan University of Medical Sciences	Iran	40.8	11.2	67.6	18.8	27.9	37.0-41.8
	501 600	Lenigh University	United States	33.0	22.5	59.6	03.0 67.0	13.8	37.0-41.8
	601 800	University of Line	Fidlice	52.0 19.6	23.Z	50.0 65.0	52.4	00.0	27.0 /11.0
	601-800		France	27.3	12.4	58.0	52.4 60.6	92.3 72.0	37.0-41.0
	601-800	Louisiana State University	United States	21.3	10.9 21 /	61.1	63.1	12.9	37.0-41.8
	601-800	Lviv Polytechnic National University	Ilkraine	22.1	11 3	34.2	18.8	27.1	37 0-41 8
	801-1 000	Mahidol University	Thailand	39.3	25.0	46.3	78.6	48.7	37 0-41 8
	NR	Malaviva National Institute of Technology	India	29.9	15.6	76.5	19.8	20.3	37.0-41.8
	801-1.000	Universiti Malaysia Pahang	Malaysia	27.4	19.0	67.5	28.3	57.9	37.0-41.8
	801-1.000	Manipal Academy of Higher Education	India	45.0	18.5	46.3	44.9	48.3	37.0-41.8
	,	, , , , , , , , , , , , , , , , , , , ,							

## **Repeatedly ranked** #1

## ASU ahead of MIT and Stanford

U.S. News & World Report, 2016–2023

ASU ahead of Stanford and UC Berkeley Sustainability Tracking, Assessment & Rating System, 2023



imes Higher Education, 2020–2023



**Over the last** 10 years, Arizona **State University** has emerged as one of the country's fastestgrowing research universities

among those with more than \$100 million in annual research expenditures ahead of Harvard, Yale and Duke.

Now a member of the prestigious Association of American Universities. ASU's academic

reputation continues to rise worldwide.

#### ASU is a top producer of elite scholars

ASU is one of only nine universities in the U.S. in 2023 to be named a "Top Producing Institution" for both Fulbright Student and Fulbright Faculty Scholar awards, and in the past 10 years has produced more Fulbright scholars than Duke, Johns Hopkins and UC Berkeley. In 2023, ASU is one of only three public U.S. universities to produce both Rhodes and Marshall scholars, along with University of Georgia and University of Texas at Austin.



#### A top university worldwide for academic reputation

ASU is named to the top 100 in the world for academic reputation by Times Higher Education. The ranking is based on the world's largest invitation-only academic opinion survey, which uses United Nations data as a guide to ensure that the results are representative of world scholarship, and targets only experienced, published scholars.

#1 public university in the U.S. chosen by international students ahead of UCLA, UC Berkeley and **University of Illinois at Urbana-Champaign** -Institute of International Education, 2022

#### asu.edu

Rank 2024	Rank 2023	Institution	Country/ region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
601-800	601-800	Marche Polytechnic University	Italy	23.2	22.6	75.6	64.9	36.0	37.0-41.8
(cont)	601-800	University of Maryland, Baltimore County	United States	28.8	24.6	61.5	66.8	50.1	37.0-41.8
	801-1,000	Masaryk University	Czech Republic	25.9	31.0	50.1	41.7	66.3	37.0-41.8
	601-800	Mashhad University of Medical Sciences	Iran	34.9	14.7	63.9	28.5	29.7	37.0-41.8
	351-400	Mazandaran University of Medical Sciences	Iran	44.1	12.4	65.6	28.1	24.7	37.0-41.8
	801-1,000	University of Minho	Portugal	26.3	30.3	59.3	74.7	51.9	37.0-41.8
	801-1,000	Mississippi State University	United States	27.3	20.0	58.8	66.2	50.7	37.0-41.8
	801-1,000	Monterrey Institute of Technology	Mexico	24.0	22.7	61.9	60.1	65.8	37.0-41.8
	801-1,000	University of Namur	Belgium	24.4	27.2	53.7	62.8	69.7	37.0-41.8
	1,001-1,200	Nanjing University of Aeronautics and Astronautics	China	28.2	31.6	50.1	71.4	24.7	37.0-41.8
	801-1,000	Nanjing Forestry University	China	22.6	21.2	79.4	28.7	28.0	37.0-41.8
	801-1,000	Nanjing lech University	China	21.8	16.2	69.1	68.1	37.1	37.0-41.8
	801-1,000	National Institute of Applied Sciences of Lyon (INSA Lyon)	France	37.2	27.0	38.3	93.8	/5.1	37.0-41.8
	601,900	National University of Sciences and Technology	Pakistan Duosion Fodoration	20.1	19.4	11.2	34.9	55.1 65.6	37.0-41.8
	001-000	National Sup Vat Son University		39.1 20 2	21.1	43.2	70.1	47.0	27.0.41.0
	801-1,000	National Technical University of Athens	Greece	20.2	23.0	43.0 50.1	79.1 50.7	47.Z	37.0-41.0
	1 001-1 200	National Institute of Technology Rourkela	India	20.3	23.0	59.1 64.7	29.7 20.0	30.1 23.1	37.0-41.0
	601-800	National Institute of Technology Notificial	India	32.4	10.2	71.7	18 /	20.1	37.0-41.0
	601-800	Near Fast University	Northern Cynrus	25.9	19.5	66.6	10.4 40 0	20.3	37.0-41.8
	601-800	University of Nevada Las Vegas	United States	29.3	25.6	64.7		38.3	37.0-41.8
	601-800	University of New Brunswick LINB	Canada	23.0	25.0	62.4	64.0	81.1	37 0-41 8
	601-800	University of North Carolina at Charlotte	United States	23.2	22.1	74.4	58.7	37.0	37.0-41.8
	801-1.000	Northeastern University. China	China	31.5	28.1	57.8	73.7	46.7	37.0-41.8
	801-1.000	Northern Illinois University	United States	26.3	15.9	60.0	60.4	62.8	37.0-41.8
	601-800	North-West University	South Africa	22.7	18.7	64.3	48.0	56.6	37.0-41.8
	601-800	Norwegian University of Life Sciences	Norway	32.1	14.7	64.0	36.5	70.8	37.0-41.8
	801-1,000	Novosibirsk State University	Russian Federation	42.2	36.6	31.6	40.7	51.9	37.0-41.8
	801-1,000	Ohio University (Main campus)	United States	30.6	20.1	61.2	54.7	37.2	37.0-41.8
	601-800	Oklahoma State University	United States	34.1	20.9	60.8	65.8	56.0	37.0-41.8
	801-1,000	Old Dominion University	United States	26.1	20.4	61.2	64.0	38.1	37.0-41.8
	601-800	Ontario Tech University	Canada	18.8	25.0	63.5	51.9	63.2	37.0-41.8
	601-800	The Open University	United Kingdom	17.7	16.1	68.7	52.6	63.6	37.0-41.8
	501-600	Open University of Catalonia	Spain	18.4	18.2	75.9	29.7	51.0	37.0-41.8
	401-500	Örebro University	Sweden	20.1	22.5	77.9	43.8	54.6	37.0-41.8
	NR	Otto von Guericke University of Magdeburg	Germany	33.4	18.0	54.4	51.4	74.5	37.0-41.8
	601-800	Oxford Brookes University	United Kingdom	25.1	21.1	62.5	29.1	87.9	37.0-41.8
	801-1,000	University of Palermo	Italy	18.9	22.5	69.8	47.2	34.8	37.0-41.8
	801-1,000	Panjab University	India	32.6	16.2	67.9	39.2	23.5	37.0-41.8
	601-800	University of Parma	Italy	19.4	22.6	72.2	65.9	38.7	37.0-41.8
	801-1,000	Parthenope University of Naples	Italy	18.5	22.6	78.2	25.6	32.2	37.0-41.8
	801-1,000	Universiti Pendidikan Sultan Idris	Malaysia	35.3	25.2	38.8	62.3	70.8	37.0-41.8
	801-1,000	Universitat Politècnica de Catalunya	Spain	31.2	21.0	57.3	69.7	61.4	37.0-41.8
	801-1,000	Polytechnic University of Valencia	Spain	30.0	25.0	55.4	83.2	57.6	37.0-41.8
	601-800	Prince Sattam Bin Abdulaziz University	Saudi Arabia	21.3	12.0	80.8	23.5	75.8	37.0-41.8
	801-1,000	Princess Nourah bint Abdulrahman University	Saudi Arabia	26.7	16.3	66.1	28.3	91.7	37.0-41.8
	401-500	Vazvin University of Medical Sciences	Iran	38.7	11.6	/1.9	18.7	26.5	37.0-41.8
	601-800	Ungdao University	China	17.8	18.4	84.1	40.0	24.4	37.0-41.8
	501-600	Universitat Ramon Llull	Spain	20.7	18.2	70.3	32.1	72.6	37.0-41.8



Η

Α

5

Ξ





### A PIONEER IN TEACHING, RESEARCH, SUSTAINABILITY, AND INNOVATION.

High Quality Programs - 54 Bachelor programs, 33 Master programs , and one PhD program

Attractive Location - On Highway Connecting Neighboring Countries

Safe Environment - 60% Female Students

Harmonical Student Population - 29+ Nationalities

Environmentally Sustainable Campus - 100% Clean Energy

Mediterranean Climate- Modest Weather

International Accreditations - 15 Programs (ABET, WFME, WFOT, NAAB, AMRCB, FAIMER and Others)

**T**op Medical Specialties - Medicine, Dentistry, Pharmacy, Nursing and Applied Medical Sciences

E-Learning Environment - Smart Campus



#### **Education for a Better Future**

And Aler BI The States

NV

The Hashemite University, Zarqa, Jordan ⓒ +962-5-3903333 ∰ www.hu.edu.jo

(in)

Rank 2024	Rank 2023	Institution	Country/ region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
601-800	301-350	Reykjavík University	Iceland	15.6	24.0	76.1	28.7	64.4	37.0-41.8
(cont)	801-1,000	University of Rhode Island	United States	26.3	20.5	57.4	50.0	53.7	37.0-41.8
	801-1,000	University of Rome III	Italy	23.1	25.3	58.3	49.5	45.4	37.0-41.8
	801-1,000	Roskilde University	Denmark	21.9	33.4	55.5	76.1	54.6	37.0-41.8
	601-800	RUDN University	<b>Russian Federation</b>	39.1	23.0	46.1	21.0	70.4	37.0-41.8
	501-600	Saint-Petersburg Mining University	Russian Federation	29.7	16.9	69.3	50.4	43.1	37.0-41.8
	801-1,000	University of Salento	Italy	30.1	21.8	64.5	52.2	34.5	37.0-41.8
	601-800	University of Sannio	Italy	23.6	20.5	63.6	71.1	29.3	37.0-41.8
	601-800	University of Santiago de Compostela	Spain	29.7	21.1	58.7	69.6	46.6	37.0-41.8
	501-600	University of Sassari	Italy	31.1	24.7	66.3	45.7	41.9	37.0-41.8
	501-600	Saveetha Institute of Medical and Technical Sciences	India	31.7	10.2	77.8	17.3	58.9	37.0-41.8
	1,001-1,200	Shahid Beheshti University of Medical Sciences	Iran	45.1	22.9	49.9	63.5	27.1	37.0-41.8
	801-1,000	University of Siegen	Germany	27.4	26.9	60.7	46.2	62.7	37.0-41.8
	801-1,000	South China Normal University	China	22.9	21.7	63.9	51.4	37.4	37.0-41.8
	801-1,000	South Ural State University	Russian Federation	23.2	13.5	74.7	24.7	54.5	37.0-41.8
	401-500	SRUC (Scotland's Rural College)	United Kingdom	25.3	12.8	79.3	26.9	64.8	37.0-41.8
	501-600	University of Stavanger	Norway	24.7	15.6	66.6	30.2	74.4	37.0-41.8
	601-800	Sultan Qaboos University	Oman	28.1	22.2	62.3	35.7	74.0	37.0-41.8
	801-1,000	Sunway University	Malaysia	24.7	14.6	71.7	17.2	78.3	37.0-41.8
	601-800	SUNY Binghamton University	United States	30.7	22.0	61.1	62.8	42.7	37.0-41.8
	601-800	Tallinn University of Technology	Estonia	25.7	20.6	65.7	48.1	69.1	37.0-41.8
	601-800	Tehran University of Medical Sciences	Iran	50.0	18.5	54.3	45.1	37.5	37.0-41.8
	801-1,000	Universiti lenaga Nasional (UNITEN)	Malaysia	25.1	16.8	58.0	/0.8	60.8	37.0-41.8
	601-800	University of lexas at Arlington	United States	25.2	20.5	65.5	62.9	55.0	37.0-41.8
	801-1,000	Texas lech University	United States	30.7	20.9	56.9	58.0	58.9	37.0-41.8
	601-800	Ihapar Institute of Engineering and lechnology	India	24.3	11.9	84.8	23.0	28.7	37.0-41.8
	601-800	University of Ioledo	United States	35.7	16.7	54.5	68.8	56.7	37.0-41.8
	401-500	Ion Duc Inang University	Vietnam	12.9	16.0	90.6	20.9	63.1	37.0-41.8
	801-1,000	Ioronto Metropolitan University	Canada	19.5	32.3	57.3	70.3	62.1	37.0-41.8
	501-600	University of Liding	Italy	21.4	22.0	70.1	54.9	43.2	37.0-41.8
	501-600	University of Dame	Italy	28.0	20.2	73.1 62.0	01.1 50.1	41.8	37.0-41.8
	601 800	University	Saudi Arabia	21.3	22.4	62.0	52.2	02.4 72.1	27.0 /1.9
	601 900	Darie Ladron Universität Salzburg	Austria	21.6	14.4	55.0	JJ.Z	02.4	27.0 /11.0
	401-500	Irmia University of Modical Sciences	Iran	31.0	23.4	60.3	40.0	93.4 25.2	37.0-41.0
	801-1 000	VIT University	India	27.0	15.6	68.3	28.0	/6.2	37.0-41.0
	801-1,000	University of Warsaw	Poland	33.1	29.9	55.6	37.1	45.6	37.0-41.8
	601-800	University of the Western Cane	South Africa	22.0	23.3	59.3	22.6	40.0 65.7	37.0-41.8
	601-800	University of the West of Scotland	United Kingdom	24.4	16.0	66.5	24.2	86.9	37 0-41 8
	401-500	William & Mary	United States	38.4	21.7	62.2	37.1	39.1	37.0-41.8
	601-800	University of Wolverhampton	United Kingdom	19.1	14.7	64.7	40.7	81.1	37.0-41.8
	801-1.000	Worcester Polytechnic Institute	United States	30.0	22.1	61.2	61.8	57.2	37.0-41.8
	351-400	Wroclaw Medical University	Poland	40.7	13.3	66.9	36.5	37.7	37.0-41.8
	801-1.000	University of Wyoming	United States	35.9	20.3	62.1	58.6	37.7	37.0-41.8
	601-800	Xi'an Jiaotong-Liverpool University	China	18.6	15.1	70.8	20.9	77.3	37.0-41.8
	1,001-1.200	Xidian University	China	24.3	25.0	61.0	77.5	25.9	37.0-41.8
	801-1.000	Yeungnam University	South Korea	24.1	18.0	66.8	47.0	54.9	37.0-41.8
	501-600	Zhejiang Normal University	China	20.3	19.0	75.4	54.1	35.6	37.0-41.8
	601-800	Zhengzhou University	China	18.7	19.8	82.5	35.8	25.2	37.0-41.8

Every success is a fresh beginning



WWW.QU.EDU.SA



Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
801-1,000	801-1,000	University of the Aegean	Greece	18.3	21.9	54.4	80.0	33.9	32.7-36.9
	601-800	Ahvaz Jundishapur University of Medical Sciences (AJUMS)	Iran	38.1	10.7	58.1	20.1	21.8	32.7-36.9
	801-1,000	Al-Azhar University	Egypt	19.2	10.9	69.2	20.4	57.4	32.7-36.9
	801-1,000	University of Alcalá	Spain	27.8	15.1	55.0	41.9	64.4	32.7-36.9
	801-1,000	Alexandria University	Egypt	17.9	17.7	58.2	27.2	51.4	32.7-36.9
	1,001-1,200	University of Algarve	Portugal	18.5	19.5	52.3	25.3	66.4	32.7-36.9
	801-1,000	American University in Cairo	Egypt	26.7	24.0	51.1	23.0	70.3	32.7-36.9
	1,001-1,200	Amity University	India	23.6	14.0	62.3	20.0	31.1	32.7-36.9
	NR	Amrita Vishwa Vidyapeetham	India	28.4	20.5	60.8	41.1	36.9	32.7-36.9
	1,001-1,200	University of the Andes, Colombia	Colombia	24.4	19.6	48.4	28.5	60.8	32.7-36.9
	401-500	Arak University of Medical Sciences	Iran	31.7	10.2	66.4	18.9	21.2	32.7-36.9
	801-1,000	Aristotle University of Thessaloniki	Greece	22.3	16.8	66.3	52.7	38.1	32.7-36.9
	1,001-1,200	Arts et Métiers	France	31.1	19.5	35.2	67.7	67.0	32.7-36.9
	401-500	Aswan University	Egypt	16.7	12.1	75.6	18.4	50.4	32.7-36.9
	801-1,000	Athens University of Economics and Business	Greece	18.1	23.6	53.3	57.8	44.5	32.7-36.9
	601-800	Bahçeşehir University	Turkey	19.5	24.4	59.4	39.6	61.2	32.7-36.9
	601-800	Bahria University	Pakistan	14.2	9.7	77.3	16.2	48.7	32.7-36.9
	801-1,000	University of the Balearic Islands	Spain	26.8	15.1	56.4	32.0	58.1	32.7-36.9
	801-1,000	University of Belgrade	Serbia	21.3	27.0	49.4	34.0	42.3	32.7-36.9
	801-1,000	University of Bergamo	Italy	19.4	21.2	59.6	33.3	37.5	32.7-36.9
	801-1,000	Birla Institute of Technology and Science, Pilani	India	23.7	17.0	67.4	31.7	25.1	32.7-36.9
	NR	BRAC University	Bangladesh	14.8	12.3	71.1	15.7	42.2	32.7-36.9
	NR	Université de Bretagne Occidentale	France	20.3	19.6	52.0	47.8	60.5	32.7-36.9
	801-1,000	University of Brighton	United Kingdom	19.8	16.5	53.9	60.9	84.4	32.7-36.9
	501-600	Bucharest University of Economic Studies	Romania	19.7	11.6	75.9	20.8	27.8	32.7-36.9
	801-1,000	Cairo University	Egypt	25.0	18.5	59.9	39.2	45.4	32.7-36.9
	601-800	University of Camerino (Unicam)	Italy	18.0	17.6	58.6	60.0	53.0	32.7-36.9
	1,001-1,200	Carlos III University of Madrid	Spain	29.5	20.8	42.9	66.9	60.0	32.7-36.9
	1,001-1,200	University of Castilla-La Mancha	Spain	24.2	17.2	53.7	46.3	42.0	32.7-36.9
	351-400	Catholic University of Portugal	Portugal	19.6	18.7	64.4	25.6	55.7	32.7-36.9
	501-600	Changsha University of Science and Technology	China	16.8	13.5	76.5	41.6	27.9	32.7-36.9
	801-1,000	Chapman University	United States	36.9	14.7	48.1	59.2	46.8	32.7-36.9
	1,001-1,200	Charles Sturt University	Australia	18.5	17.9	55.1	58.0	66.3	32.7-36.9
	801-1,000	Institute of Chemical Technology	India	37.5	20.7	51.0	57.9	17.4	32.7-36.9
	801-1,000	Chengdu University	China	18.5	14.5	74.1	28.5	28.2	32.7-36.9
	1,001-1,200	Chiang Mai University	Thailand	28.5	19.1	46.3	58.1	39.5	32.7-36.9
	1,001-1,200	Chiba University	Japan	33.2	20.9	42.0	68.9	33.9	32.7-36.9
	1,001-1,200	University of Chile	Chile	25.9	19.8	50.5	57.4	52.9	32.7-36.9
	NR	China University of Petroleum (East China)	China	22.2	23.0	54.3	68.2	23.8	32.7-36.9
	1,001-1,200	Chonnam National University	South Korea	28.5	28.3	43.6	57.5	32.8	32.7-36.9
	1,201-1,500	Chungnam National University	South Korea	29.9	29.7	34.9	71.7	26.0	32.7-36.9
	1,001-1,200	Clarkson University	United States	29.9	18.0	41.2	67.4	63.3	32.7-36.9
	801-1,000	University of Clermont Auvergne	France	21.8	18.1	54.2	61.6	68.3	32.7-36.9
	NR	University of la Costa	Colombia	13.2	10.7	74.2	16.3	54.9	32.7-36.9
	601-800	Covenant University	Nigeria	24.7	24.4	56.6	24.2	54.3	32.7-36.9
	801-1,000	CY Cergy Paris University	France	23.8	25.3	44.4	56.6	92.7	32.7-36.9
	1,001-1,200	Czech University of Life Sciences Prague (CZU)	Czech Republic	20.1	15.4	50.8	50.2	76.4	32.7-36.9
	501-600	Damietta University	Egypt	16.4	9.4	73.0	17.4	46.1	32.7-36.9
	1,001-1,200	University of Delhi	India	40.4	24.2	39.0	40.5	23.3	32.7-36.9
	601-800	Delhi Technological University	India	16.9	20.1	76.7	28.5	19.7	32.7-36.9

## Campus+

Share your institution's expertise and grow your global reputation with a Campus+ partnership

#### **Our Partners:**





















禀 門 科 技 大 學 Macau UNIVERSITY OF SCIENCE AND TECHNOLOGY

#### Find out more





## **REINVENTING** STUDENT LEARNING EXPERIENCE

ADVANCING INNOVATION AND RESEARCH THROUGH CUTTING-EDGE CENTRES AND TECHNOLOGIES

## #1 IN KUWAIT #18 IN THE REGION



www.aum.edu.kw
Rank 2024	Rank 2023	Institution	Country/ region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
801-1,000	801-1,000	University of Deusto	Spain	22.5	23.2	54.3	36.6	42.3	32.7-36.9
(cont)	601-800	University of Dhaka	Bangladesh	17.5	10.0	68.8	18.1	48.5	32.7-36.9
	601-800	Eötvös Loránd University	Hungary	28.6	19.2	57.3	33.4	51.3	32.7-36.9
	801-1,000	Federal University of Minas Gerais	Brazil	40.2	23.3	43.3	50.8	33.4	32.7-36.9
	1,001-1,200	Universidade Federal de Santa Catarina	Brazil	32.5	21.6	41.6	64.2	35.3	32.7-36.9
	601-800	Universidade Federal de São Paulo (UNIFESP)	Brazil	33.2	22.5	48.2	47.2	35.2	32.7-36.9
	1,001-1,200	Ferdowsi University of Mashhad	Iran	28.6	26.8	48.2	45.4	38.6	32.7-36.9
	801-1,000	Florida Atlantic University	United States	22.5	21.9	57.3	57.6	51.8	32.7-36.9
	1,001-1,200	Florida Institute of Technology	United States	29.0	16.4	45.2	54.8	80.4	32.7-36.9
	801-1,000	University of the Free State	South Africa	22.4	18.7	56.4	26.9	51.7	32.7-36.9
	801-1,000	Fuzhou University	China	18.9	16.5	71.5	53.2	36.7	32.7-36.9
	801-1,000	University of Girona	Spain	20.8	22.4	56.3	55.0	56.8	32.7-36.9
	NR	University of Gloucestershire	United Kingdom	17.4	14.0	57.6	34.5	65.7	32.7-36.9
	NR	Gorgan University of Agricultural Sciences and Natural Resources	Iran	15.8	11.3	78.0	34.2	35.7	32.7-36.9
	601-800	Guangzhou University	China	19.4	12.7	77.1	22.4	35.9	32.7-36.9
	601-800	Guangzhou Medical University	China	24.2	10.2	72.5	26.6	28.5	32.7-36.9
_	NR	Guilan University of Medical Sciences	Iran	38.2	10.4	63.7	16.6	21.9	32.7-36.9
	1,201-1,500	Harbin Engineering University	China	28.1	30.6	43.6	64.9	24.4	32.7-36.9
	601-800	Hazara University Mansehra	Pakistan	27.1	10.7	70.9	16.7	49.0	32.7-36.9
	351-400	Howard University	United States	48.0	18.8	41.6	39.8	39.3	32.7-36.9
	401-500	University of Ibadan	Nigeria	27.6	14.4	59.3	24.4	41.0	32.7-36.9
	601-800	Ilam University of Medical Sciences	Iran	30.8	12.0	65.7	17.2	23.4	32.7-36.9
	1,001-1,200	Indian Institute of Science Education and Research, Pune	India	42.9	25.1	35.7	25.4	38.9	32.7-36.9
	801-1,000	Indian Institute of Iechnology Gandhinagar	India	41.1	27.2	39.0	26.5	29.6	32.7-36.9
	1,001-1,200	University of Indonesia	Indonesia	45.5	23.1	29.2	51.9	60.3	32.7-36.9
	601-800	Indraprastha Institute of Information Technology Delhi	India	22.8	16.0	66.2	57.8	44.6	32.7-36.9
	1,001-1,200	Inna University	South Korea	31.2	27.2	41.7	83.9	38.8	32.7-36.9
	801-1,000	Universitat Internacional de Catalunya	Spain	22.8	17.0	57.0	21.2	65.9	32.7-36.9
	001-800		Pakistan	17.3	11.2	12.1	17.0	00.0	32.7-30.9
	1,001-1,200	Islaman University of Medical Sciences	Irdii Dekieten	45.0	13.0	47.0	20.0	25.4	32.7-30.9
	901 1 000		Pakistali	21.4	11.1	64.2	11.1	0.CC	32.7-30.9
	001-1,000		Spann	20.7	10.0	71.0	41.0	40.4	20 7 26 0
	1 001-1 200		Spain	24.1	0.9 20 5	71.9 56.5	19.0	49.7	32.7-30.9
	1 201-1 500	Jawaharlal Nehru Technological University Anantanur (INTUA)	India	23.0	1/1 1	60.7	17.5	19.6	32.7-36.9
	1,201-1,500 NR	Javnee University of Information Technology	India	20.3	16.5	70.6	22.5	23.8	32.7-36.9
	401-500	lazan University	Saudi Arabia	23.2	9.9	67.3	19.4	77.4	32.7-36.9
	1 001-1 200	leonhuk National University	South Korea	30.2	27.3	45.0	68.1	34.1	32 7-36 9
	1 001-1 200	liangnan University	China	24.7	21.0	60.2	76.6	24.0	32 7-36 9
	501-600	Jordan University of Science and Technology	lordan	19.8	13.6	67.3	40.8	61.1	32.7-36.9
	351-400	JSS Academy of Higher Education and Research	India	39.7	10.6	51.9	22.0	51.8	32.7-36.9
	501-600	Kafrelsheikh University	Egypt	14.7	9,1	76.2	20.0	51.9	32.7-36.9
	601-800	Kalasalingam Academy of Research and Education	India	29.1	8.9	74.8	19.9	30.3	32.7-36.9
	1,001-1.200	Kaohsiung Medical University	Taiwan	26.4	26.1	44.0	81.3	28.7	32.7-36.9
	801-1.000	Kazan Federal University	Russian Federation	44.7	21.7	32.3	42.6	69.2	32.7-36.9
	801-1,000	King Faisal University	Saudi Arabia	19.9	12.2	68.0	31.4	75.5	32.7-36.9
	801-1,000	King Mongkut's University of Technology Thonburi	Thailand	21.5	22.1	59.5	71.0	43.3	32.7-36.9
	801-1,000	Kingston University	United Kingdom	20.0	15.3	53.2	52.2	91.3	32.7-36.9
	1,001-1,200	K.N. Toosi University of Technology	Iran	22.6	21.0	60.2	34.8	35.7	32.7-36.9
	601-800	Kore University of Enna	Italy	18.0	12.3	71.3	40.9	37.3	32.7-36.9



# RESEARCH TO REALITY

A community of innovators, disruptors and change-makers, we're working with industry to broaden our translational impact to help tackle the global challenges of our age.





## qub.ac.uk/research

Rank 2024	Rank 2023	Institution	Country/ region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
801-1,000	1,001-1,200	Kumamoto University	Japan	33.6	19.6	40.9	77.5	36.5	32.7-36.9
(cont)	601-800	University of Kurdistan	Iran	16.8	14.7	70.8	19.0	35.9	32.7-36.9
	1,001-1,200	Kyoto Prefectural University of Medicine	Japan	33.6	16.0	47.8	68.2	20.1	32.7-36.9
	801-1,000	University of Lahore	Pakistan	17.6	10.2	68.8	20.3	52.6	32.7-36.9
	601-800	Lahore University of Management Sciences	Pakistan	23.3	16.7	60.2	43.1	53.0	32.7-36.9
	801-1,000	Lakehead University	Canada	17.6	24.0	51.4	48.7	59.2	32.7-36.9
	1,001-1,200	Lebanese University	Lebanon	42.8	22.3	23.6	17.7	78.8	32.7-36.9
	801-1,000	Leeds Beckett University	United Kingdom	17.7	16.2	65.0	49.9	67.3	32.7-36.9
	801-1,000	Lithuanian University of Health Sciences	Lithuania	27.1	12.6	55.5	25.5	52.9	32.7-36.9
	801-1,000	University of Ljubljana	Slovenia	24.5	20.1	54.6	69.8	42.4	32.7-36.9
	801-1,000	University of Lleida	Spain	23.5	20.1	58.2	57.3	45.4	32.7-36.9
	801-1,000	Lovely Professional University	India	21.5	12.8	73.7	17.5	43.4	32.7-36.9
	801-1,000	Makerere University	Uganda	23.4	25.3	39.6	52.1	68.1	32.7-36.9
	601-800	University of Malakand	Pakistan	16.8	14.0	74.1	26.7	49.2	32.7-36.9
	801-1,000	University of Malta	Malta	23.4	16.2	60.6	20.5	53.8	32.7-36.9
	501-600	University of Management and Technology	Pakistan	13.8	10.4	80.4	19.1	51.3	32.7-36.9
	601-800	Mansoura University	Egypt	19.5	12.4	68.1	31.8	(4.1	32.7-36.9
	801-1,000	Marquette University	United States	36.9	18.2	54.0	49.3	33.1	32.7-36.9
	008-100	Medical University of Lodz	Poland	27.4	11.0	67.6	39.7	32.3	32.7-30.9
	NK	University of Medicine and Pharmacy Carol Davila	Romania	20.3	11.0	62.6	24.0	38.8	32.7-30.9
	801-1,000	University of Mehadhadh Andahili		27.5	19.0	55.0	63.0	35.0	32.7-30.9
	001-800	University of Monagnegn Ardabili	Iran	19.3	17.3	71.5	19.7	32.9	32.7-30.9
	1 001 1 200		Spain	24.0	20.4	52.6	61.4	38.0	32.1-30.9
	201 1 000	University of Multid	China	10.0	19.9	52.0	12.0	30.9	20 7 26 0
	1 001-1,000	Nanjing University of Miormation Science and rechnology	China	26.3	16.5	58.1	42.0	42.4 25.8	32.7-30.9
	801-1.000	Nanjing Normal University	China	25.1	15.1	66.5	50.7	20.0	32.7-36.9
	1 001-1 200	National Autonomous University of Mexico	Mexico	20.1	30.4	34.4	62.5	58.4	32.7-30.9
	1,001-1,200	National Taipei University of Technology	Taiwan	23.3	25.0	35.8	94.1	41.6	32.7-36.9
	801-1 000	National Institute of Technology Tiruchirannalli	India	33.8	17.1	60.2	27.1	21.2	32 7-36 9
	801-1,000	The New School	United States	29.8	15.5	45.8	27.1	61 1	32 7-36 9
	801-1.000	New Mexico State University (Main campus)	United States	25.8	22.1	49.8	62.9	45.6	32.7-36.9
	1.201-1.500	North China Electric Power University	China	22.0	23.1	51.4	60.1	22.4	32.7-36.9
	801-1.000	Northeast Normal University	China	28.2	15.6	60.9	45.5	31.1	32.7-36.9
	801-1,000	University of Northern British Columbia (UNBC)	Canada	21.1	21.8	51.7	21.4	52.0	32.7-36.9
	601-800	North South University	Bangladesh	12.9	10.0	76.1	15.8	43.3	32.7-36.9
	401-500	Nova Southeastern University	United States	39.1	12.2	50.1	38.9	34.4	32.7-36.9
	1,001-1,200	Okayama University	Japan	34.6	21.5	36.4	84.9	37.2	32.7-36.9
	1,001-1,200	University of Oviedo	Spain	29.0	18.5	49.2	40.6	37.8	32.7-36.9
	801-1,000	Ozyegin University	Turkey	16.3	23.9	53.5	58.0	57.7	32.7-36.9
	801-1,000	Pablo de Olavide University	Spain	23.8	17.5	58.5	66.9	47.8	32.7-36.9
	1,001-1,200	Palacký University Olomouc	Czech Republic	23.4	23.9	49.8	36.8	61.8	32.7-36.9
	801-1,000	Panthéon-Sorbonne University – Paris 1	France	33.9	31.8	36.6	27.3	67.7	32.7-36.9
	1,001-1,200	University of Patras	Greece	19.0	17.8	56.2	68.4	35.1	32.7-36.9
	NR	UPES	India	28.3	16.7	63.7	17.1	50.7	32.7-36.9
	NR	Université de Poitiers	France	28.6	25.7	36.0	45.0	58.9	32.7-36.9
	801-1,000	Pontifical Catholic University of Rio de Janeiro (PUC-Rio)	Brazil	33.4	30.5	37.1	62.9	43.2	32.7-36.9
	1,001-1,200	Portland State University	United States	22.1	23.2	55.7	54.7	35.0	32.7-36.9
	801-1,000	University of the Punjab	Pakistan	27.7	14.7	62.4	24.9	46.7	32.7-36.9

Rank 2024	Rank 2023	Institution	Country/region	Teaching	Research environment	Research quality	Industry	International outlook	Overall score
801-1,000	1,201-1,500	Qassim University	Saudi Arabia	36.0	20.4	42.8	21.6	80.2	32.7-36.9
(cont)	401-500	Qom University of Medical Sciences	Iran	35.2	7.3	60.0	17.9	22.4	32.7-36.9
	601-800	University of Regina	Canada	17.8	19.5	62.9	36.1	71.0	32.7-36.9
	1,001-1,200	Reichman University	Israel	13.1	16.6	64.3	31.4	63.6	32.7-36.9
	801-1,000	University of Rennes 1	France	32.1	17.9	44.7	64.0	63.8	32.7-36.9
	1,001-1,200	Robert Gordon University	United Kingdom	17.5	13.2	53.4	36.0	87.1	32.7-36.9
	1,001-1,200	Rochester Institute of Technology	United States	22.9	20.2	58.4	60.7	46.3	32.7-36.9
	801-1,000	University of Roehampton	United Kingdom	23.0	21.5	52.0	35.8	85.0	32.7-36.9
	801-1,000	University of Salamanca	Spain	32.0	21.8	50.4	39.9	53.6	32.7-36.9
	801-1,000	University of Salford	United Kingdom	18.8	15.0	61.1	46.9	82.2	32.7-36.9
	601-800	San Diego State University	United States	21.5	11.9	71.1	58.3	37.0	32.7-36.9
	601-800	Savitribai Phule Pune University	India	44.0	11.8	54.5	22.8	25.2	32.7-36.9
	801-1,000	Sechenov University	Russian Federation	32.6	17.1	47.7	39.4	62.1	32.7-36.9
	1,201-1,500	University of Seoul	South Korea	28.8	26.1	41.0	52.1	34.9	32.7-36.9
	1,001-1,200	University of Seville	Spain	23.8	24.5	53.6	50.8	44.0	32.7-30.9
	NK	Shanrekord University of Medical Sciences	Iran	33.7	10.5	62.0	22.0	20.0	32.7-30.9
	801-1,000	Shaffield Hallam University	United Kingdom	10 /	10.4	66.7	33.0	42.9	32.7-36.0
	801-1,000	Shiraz University	Iran	20.3	24.4	55.0	57 /	04.0 20 1	32.7-30.9
	801-1,000	Shiraz University of Medical Sciences	Iran	29.3 41 7	12 7	55.7	24.5	23.1	32.7-30.9
	NR	Shri Mata Vaishno Devi University	India	24.7	17.2	68.0	26.1	21.1	32 7-36 9
	1.001-1.200	Siksha 'O' Anusandhan	India	37.9	16.7	47.7	40.8	19.9	32.7-36.9
	1.001-1.200	Sogang University	South Korea	27.2	30.6	39.8	73.3	45.0	32.7-36.9
	NR	Institute of Space Technology	Pakistan	18.6	13.3	70.5	16.5	47.1	32.7-36.9
	501-600	University of Tabuk	Saudi Arabia	16.9	10.4	69.0	26.1	75.6	32.7-36.9
	1,001-1,200	Technical University of Madrid	Spain	26.6	15.8	49.8	57.4	53.8	32.7-36.9
	801-1,000	University of Technology, Iraq	Iraq	25.8	9.2	65.7	20.0	25.0	32.7-36.9
	801-1,000	University of Texas at El Paso	United States	24.5	28.7	44.8	51.9	46.8	32.7-36.9
	1,201-1,500	Tokyo University of Agriculture and Technology	Japan	35.0	29.1	29.6	84.5	38.1	32.7-36.9
	1,001-1,200	Tokyo Medical University	Japan	35.1	17.0	54.0	70.4	21.4	32.7-36.9
	1,001-1,200	Tomsk Polytechnic University	<b>Russian Federation</b>	40.5	23.5	31.7	54.9	69.4	32.7-36.9
	NR	University of Tours	France	32.7	15.9	42.2	52.9	61.2	32.7-36.9
	1,001-1,200	University of Trás-os-Montes and Alto Douro	Portugal	22.5	31.2	44.6	23.5	40.5	32.7-36.9
	1,201-1,500	University of Tunis El Manar	Tunisia	42.3	19.9	31.1	49.5	50.5	32.7-36.9
	1,001-1,200	Urmia University	Iran	29.6	19.5	56.9	25.8	38.0	32.7-36.9
	1,001-1,200	University of Veterinary and Animal Sciences, Lahore	Pakistan	22.2	17.0	53.7	46.7	55.5	32.7-36.9
	501-600	University of Vic – Central University of Catalonia	Spain	19.1	13.1	70.8	20.2	59.1	32.7-36.9
	1,001-1,200	University of Vigo	Spain	25.1	17.9	57.8	49.5	47.4	32.7-36.9
	801-1,000	Vilnius University	Lithuania	26.6	17.5	51.4	44.4	46.7	32.7-36.9
	1,001-1,200	Waseda University	Japan	33.7	26.2	43.1	56.7	54.8	32.7-30.9
	001-800	Wenzhou University	China	10.2	15.0	78.1 69.7	21.8	34.8 40.9	32.7-30.9
	1 001-1 200	Iniversity of Westminster	United Kingdom	10.4	13.0	55.2	38.3	42.ð 97.1	32.7-30.9
	1 001-1 200	Vildiz Technical University		19.4	28.0	/1.2	64.1	/0.0	32.7-30.9
	601.200	Vokohama City University	lanan	32.1 29.4	20.0	41.Z	62.4	40.9 20.0	32.7-30.9
	801-1.000	7agazig University	Føvnt	14.2	9.2	71 4	49.8	49.0	32.7-36.9
	1.001-1 200	University of Zaragoza	Spain	28.3	18.5	46.4	55.7	42.8	32.7-36.9
	1,001 1,200 NR	ZHAW Zurich University of Applied Sciences	Switzerland	20.0	15.8	46.0	59.2	72.4	32.7-36.9
	1,001-1.200	Zhejiang Gongshang University	China	21.8	12.6	61.1	30.8	44.1	32.7-36.9
	, ,			Notes: NR = not ra	inked. For the full	list of 1 904 rank	ed universities a	nd 769 reporters	visit www.thewur.com



جامعة الملك عبدالعزيز King Abdulaziz University



ST IN THE WORLD

10

## ACHIEVE YOUR GOALS

King Abdulaziz University's academic credentials are unmatched in the Arab world, and you can play a leading role in the institution's ongoing pursuit of excellence.

KAU currently offers more than 140 bachelor's degree programmes, 245 postgraduate programmes and over 40 executive postgraduate programmes. KAU has always prioritised ways of enriching students' educational experiences and developing a supportive environment, it is this approach that has resulted in KAU becoming recognised as a world-class prestigious university.

Home to approximately 9,000 students from all over the world, KAU works tirelessly to help them achieve their goals. Why not join them?

Visit **www.KAU.edu.sa** to find out how you can become a part of KAU









# No party line on politics

Daniel Diermeier tells Tiya Thomas-Alexander about traversing the polarised US political landscape and resisting calls for the university to take sides

t is not the first time that Vanderbilt University's chancellor has found himself in a politically polarised place. But unlike his peers, Daniel Diermeier seems to be more careful about the stances he takes as a university leader.

In a divided US, his philosophy of "institutional neutrality" flies in the face of calls for academic leaders to adopt a strong position on everything from gendered bathrooms to race-based admissions. Yet Diermeier insists that universities "should not come down with a party line".

Having grown up next door to the failed totalitarian German Democratic Republic, informally known as East Germany, he holds firmly to his views, which were shaped in his student days.

A first-generation high schooler turned first-generation university student in West Germany, the young Diermeier moved to the US on a graduate fellowship to study philosophy. But he soon discovered that academic philosophy was "supernarrow and very deep". Disillusioned, he returned home, his studies unfinished. Already, he had a simmering interest in politics and economics. Then, in November 1989, the Berlin Wall came down, and Diermeier witnessed at first-hand the power of free thinking – and that spark inspired his career trajectory.

"That really created, I think, a strong experience, that political institutions really matter," he says of the event and its effect on him. "The same people that were suffering under the eastern regime, once they were put in a different context, were really liberated. And you could see...just a joy."

Convinced of the power of politics, Diermeier (pictured inset) switched his field of study to political science. Not long after, he returned to the US to pursue a PhD. In the years since, he has taught at several top US institutions, with his administrative career spent mostly at the University of Chicago and Vanderbilt.

While he is a renowned political scientist and management scholar, Diermeier's leadership style seems

to be firmly founded in his "first love, so to speak", philosophy, which he admires for its "fearlessness to tackle big questions". Universities, in his view, are "delicate things" with "big, important questions to get right".

To function most effectively, universities should adhere to "principled neutrality" and refrain from taking stances on political issues, he believes. While his experience of growing up in a divided Germany paved the way for this belief, the idea also has a more formal provenance in the University of Chicago's long-established "Chicago Principles".

As described by a 2014 committee at the institution that reviewed its policy on freedom of expression: "The University's fundamental commitment is to the principle that debate or deliberation may not be suppressed because the ideas put forth are thought by some or even by most members of the University community to be offensive, unwise, immoral, or wrong-headed."

At Vanderbilt, a research univer-

Universities are delicate things with big, important questions to get right



sity that has a liberal arts college and a strong biomedical research reputation as well as a distinctly different feel from the Chicago-based institution, Diermeier has promoted the adoption of this principle.

He explains: "The Chicago Principles work really, really well to protect students and faculty from interference from the administration. That's really fundamentally what they're about."

But it's clear that with rising polarisation in the US, Vanderbilt has changed in recent years. Conflict is no longer limited to disagreements between academics and the administration – now, disputes increasingly break out between students and among groups of faculty.

Broader US politics have proven divisive. In the past

year, for example, Diermeier observed some faculty express relief at the end of *Roe* v *Wade* – the 1973 Supreme Court case that recognised a woman's constitutional right to an abortion, which was recently overturned in favour of leaving the decision to individual states. Others have been devastated.

In this context, having an institutional stance on political issues "immediately reduces" the willingness of students and scholars to speak up, Diermeier believes. Civil discourse, he says, is important to keep dissenting students from feeling silenced.

"That is not captured by the principles that the University of Chicago has espoused. So that is something that we have been very adamant on."

As chancellor, Diermeier sees himself as one-third an academic leader who cares deeply about the academy, one-third a CEO managing a 1.5 billion (£1.2 billion) budget, and one-third the "mayor of a small village with young people".

He has been vocal about his stance – a decision that has drawn criticism. In January 2022, a student advocacy climate group called Dores Divest filed a complaint requesting an investigation into Diermeier's alleged conflict of interest in advising businesses in the fossil fuel industry.

"Despite claiming a stance of 'principled neutrality', Diermeier has concealed external consulting work for the fossil fuel industry while simultaneously arguing

against fossil fuel divestment to the Vanderbilt community," the student group said. An investigation that concluded in February found that there had been no conflict of interest.

The student group also questioned the institution's 2021 financial

report, which declared 4 per cent of its endowment allocation in natural resources as part of "oil and gas production". At the time, Diermeier told the student newspaper, *The Vanderbilt Hustler*, that the university's endowment was "not an advocacy tool" and that it would continue holding money in fossil fuels, in part to ensure that it was "maximizing the returns" on its investments.

Later, in May 2022, Diermeier wrote an article for *Inside Higher* 

*Ed* about the convictions of principled neutrality at Vanderbilt. A year later, a faculty member criticised the position. Arguing that the city of Nashville and the state of Tennessee had become "demonstrably less free" as a result of changes in local and state laws, the academic criticised the university for remaining "publicly silent".

But Diermeier appears undeterred by the criticism. "It's our responsibility to be firm" about freedom, he says. "If there's pushback, that's OK."

ut even for Diermeier, his philosophy clearly has some limits. Despite being a strong proponent of the idea that institutions should not adopt political stances, Diermeier admits he can often be found in Washington DC lobbying – in his case, for more research funding. During the pandemic, the leader even issued a statement saying that he "strongly opposed" a policy by the US Immigration and Customs Enforcement agency requiring international students in the US to leave the country if their course was fully online.

Most recently, the US Supreme Court's decision to ban affirmative action in the admission process struck a chord. Diermeier says the ruling makes it challenging for universities to create a diverse community going forward.

"We're firmly committed that having different perspectives and different experiences and different backgrounds on campus benefits every student. It is not a good education if everybody looks and thinks the same, he says, adding that admissions is about more than "just picking people from a list".

"When you do admissions, you're creating a student community. That will become much more difficult," he notes.

In that case, where does he draw the line on his philosophy? According to Diermeier, principled neutrality applies only to issues "that do not affect the university directly".

Admissions, which is a "core function" of the university, is fair game for him. Abortion, however – another strongly polarising topic in the US, which the Supreme Court ruled on in 2022 – is not. He feels there's a key difference.

"It affects the members of my community, but not more than other members of the community. We will not comment. That's the principle." • It is not a good education if everybody looks and thinks the same





## An-Najah National University





## Inauguration of the First Virtual Reality Simulation Labs in the Middle East for Dentistry

An-Najah National University takes the lead in developing the first Virtual Reality Simulation Labs in the Middle East for Dentistry and Dental Surgery Program at the Faculty of Medicine and Health Sciences.

Virtual reality dental lab is equipped with haptic technology which delivers the illusion of different dental substances (enamel, dentin, headpieces, burs....) and feeling of force within the virtual environment.

In this lab, students gain skills in operative dentistry, endodontic treatments and implantology, which will run parallel to the training undertaken in the phantom head training labs. This outstanding technology allows for smooth transition to the clinical setting.

## World University Rankings

501-600 THE World University Rankings 2023 2021-300 THE University Impact Rankings 2023 101-150 THE Young University Rankings 2023 176-200 THE Clinical and Health Subject 2023 71-80 THE Arab University Rankings 2022

Discover more: www.najah.edu

# 'Working together, we can find solutions'

Canterbury's v-c contrasts New Zealand with her native South Africa and reflects on opportunities spawned by even the worst horrors. John Ross writes

When Cheryl de la Rey moved from boisterous South Africa to the tranquillity of New Zealand to lead the University of Canterbury, in the South Island's largest city of Christchurch, she had no idea what lay ahead.

It was February 2019. A month later, she found herself addressing the biggest mass gathering in the institution's then 146-year history after attacks on two Christchurch mosques by a heavily armed extremist had left 51 people dead.

In one sense, the event was familiar territory for de la Rey. As the recently departed vice-chancellor of the University of Pretoria and a former deputy vice-chancellor at the University of Cape Town, she was no stranger to campus lockdowns.

But it was also entirely new ground for an expatriate leader preparing to counsel 5,000 distraught staff and students. "Your sense of what the message is often comes from being of a community, and being immersed in that community, and I had arrived about a

month ago. "My speech was framed around what I would call fundamental human rights principles.

I spoke – to use an oft-used phrase – from the heart, and it was really well received. That tragedy [was] an opportunity to get to know my new community a lot quicker than I would have. I came to the conclusion that my value system and the value system of my new community were the same."

It was more than a crash course in values. De la Rey (pictured inset) quickly came to know the mayor, the police commander and the head of the district health board during weekly meetings of public agency leaders, convened in the atrocity's aftermath to find ways of boosting social inclusion.

"If we see things in a more coordinated, holistic fashion, by working together, we are likely to find solutions that are more comprehensive and longer lasting," explains de la Rey, who began her academic life as a psychologist researching the role of gender and race in social cohesion. "That came out of the mosque attacks."

The massacres had a "profound impact" on the region, the city, the institution and its new leader. But the scars it left were less apparent than those wrought by another of Christchurch's defining tragedies: the February 2011 earthquake that devastated the city's heart, killing 185 people and temporarily liquefying much of its land.

An aftershock to a nearby tremor five months earlier, the disaster threatened the university's very existence as people abandoned

a city in reconstruction mode. One-quarter of commencing students never returned, and the government reportedly considered relegating the institution to provincial college status rather than funding major works.

Instead, the government in Wellington maintained Canterbury's funding at pre-quake levels despite the enrolment decline, and it committed NZ\$260 million  $(\pounds 126 \text{ million})$  to help rebuild the university's science and engineering facilities. A "Futures Programme" focused largely on capital projects, but also on strategies to lure students back to the university by transforming its teaching, gradually began to bear fruit. Enrolments started increasing again in 2016 and reached record numbers five years later. The university returned to surplus in 2018, 12 months earlier than predicted.

When de la Rey arrived the following year, she found an institution with brand-new buildings that had "perhaps not given enough attention to the digital" aspects of education. She spent the year developing a 10-year strategic vision with a strong emphasis on technology.

"Out of that, in my 2020 budget, there had already been an allocation for a digital transformation initiative," she says. "Covid, which obviously none of us saw happening, gave me an opportunity to accelerate that digital transformation. And in accelerating, of course, we put more budget behind it."

De la Rey's thinking about digital offerings had been influenced by British educationalist Sir Michael Barber's 2013 report *An Avalanche Is Coming*, which warned of the existential threat universities faced from free online courses and giant for-profit colleges.

"I was conscious that the world of educational delivery was changing significantly," de la Rey says. "That's been on my mind for a long time." Covid presented a rationale to address this challenge in more than an "incremental" way.

"I see the Covid experience as a time of accelerated change. It was my opportunity to transform the platforms, but also look at how we can embrace new technologies. Right now, think about the possibilities of artificial intelligence. ChatGPT is one of them, but there's a whole range of technologies to [help us] do what we aspire to do better."

In some senses, the earthquake helped to inure Christchurch and its university to the hardships to come. The pandemic and other global events have left at least half of New Zealand's universities in desperate straits, as the combination of rising costs, declining enrolments and sluggish funding growth forces major course and job cuts.

If we see things in a more coordinated, holistic fashion, by working together, we are likely to find solutions that are more comprehensive and longer lasting



Canterbury, by contrast, is seeing something of a boom. Enrolments at the South Island institution are up by about 6 per cent this year, while they are falling at North Island institutions. This may be partly a response to burgeoning living costs up north, as Auckland school-leavers seek a cheaper life in the south, but de la Rey credits the revitalisation of the region.

"It's not often in the world that a place has an opportunity to reinvent itself. That's what Christchurch has done." She cites as example the architectural combination of old and new, with the restored 1881 cathedral sitting alongside new buildings such as the convention centre, which incorporates Māori elements in a glass and steel structure.

"It's that combination that Christchurch has been able to achieve, and continues to work on, that makes it an exciting destination. There's new opportunity. The economy's doing well."

On the financial front, the university posted a NZ\$31 million deficit last year – considerably more

than the projected NZ\$14 million shortfall, and a big turnaround from the previous year's NZ\$19 million surplus. De la Rey attributes this largely to unrealised investment losses sustained by the university's foundation and trusts.

"We lost some money in the markets in our trusts last year," she says. "If you look at the university operation, it's not running a deficit."

That said, de la Rey is planning for future operational deficits. "This is about choosing to invest in strategic areas [including] digital transformation, and developing a sound business case for making those investments upfront, so that you're going to see a return in the future."

ndigenous relations is another area of both commonality and difference between de la Rey's original and adopted homelands. A former executive director of South Africa's National Research Foundation, she has experience with broadscale efforts to support research into Indigenous knowledge systems – an area of increasing focus for New Zealand. "The big difference is in the treaty that was signed between the Crown and Māori tribes," she said.

The document, signed in 1840 between the British and more than 540 Māori chiefs, gave the Crown exclusive rights to buy Māori land; in return, the Māori were guaranteed full rights of ownership of their lands and given the rights of British subjects.

"South Africa [has] much more history of wars," de la Rey adds. "In New Zealand, the treaty was really the framework for things that should have happened, and didn't."

That is something that universities and many other agencies are trying to set right, by articulating aspirations to become "treaty-led" organisations. The idea has aroused some scepticism among academics who say they have no idea what the term means.

"I find it a helpful concept because it gives a framework with a set of principles," says de la Rey. "Basically, it's about expectations and understanding expectations. The challenge is in translating those principles into practice." • It's not often in the world that a place has an opportunity to reinvent itself. That's what Christchurch has done

# Empowering universities to achieve their sustainability goals.

THE's SDG Impact Dashboard provides a vital tool for universities' sustainability work by providing rich data on performance & clear insight into best practice from around the world.

Now in its fifth year, universities can track their year-on-year performance in THE's Impact Rankings across two years of data to help shape and drive successful strategy.



Scan to learn more and to request a free consultation



Contact data@timeshighereducation.com to learn more







# Metrics modified but mission unchanged



Duncan Ross Chief data officer, *Times Higher Education* 

## The 20th edition is our most robust, inclusive and global ranking, thanks to significant improvements to our methodology, writes Duncan Ross

The *Times Higher Education* World University Rankings have changed significantly since the first edition in 2004. But then so has the world of higher education.

Higher education has become more international and less focused on the wealthier nations (although they still account for most of the top universities). The US dominates slightly less, Asia slightly more.

The World University Rankings have grown from only 200 institutions to just over 1,900 this year.

This year's ranking – the 20th edition – marks the second time that the methodology has been significantly updated (the last substantial alteration was in the 2011 edition). We believe these changes are necessary so that the ranking continues to reflect the outputs of the diverse range of research-intensive universities across the world, now and in the future. The decisions were made after extensive open discussion and consultation, and they have been carefully considered and evaluated to maintain the robustness of our World University Rankings.

The goal of the World University Rankings, though, remains the same: to help to explore which universities are the strongest in the world when it comes to the research mission. We take a broad look at research – we still believe that the best research informs (and is informed by) teaching, is international, and links back to the needs of commerce and industry.

#### Pillars

We have retained the five pillars that guide our methodology, although we have renamed three of

them:

- *Research* becomes *Research environment*
- *Industry income* becomes *Industry*
- *Citations* becomes *Research quality*.

We believe that these new names better reflect the metrics that the pillars contain.

#### Metrics

The biggest change to our metrics occurs within the Research quality pillar. We used to have a single metric covering this area – fieldweighted citation impact. We have retained that metric, but at a much reduced level (it is now worth 15 per cent of the overall score, down from 30 per cent), and we have supported it with three new metrics: • Research strength (5%) – a guide to how strong typical research is, based on the 75th percentile of field-weighted citation impact

• Research excellence (5%) – a guide to the amount of worldleading research at an institution, based on the volume of research in the top 10% worldwide

• Research influence (5%) – a broader look at excellence, based on the volume of research recognised by the most influential research in the world.

Maintaining the existing measure increases year-on-year stability and, crucially, supports universities that are using it to track their own progress.

Joining the industry income measure in the Industry pillar is a new metric on patents. This measure explores how often a university's research is cited in patents. Both these metrics are worth 2 per cent in the ranking, bringing the overall weighting for this pillar up from 2.5 per cent to 4 per cent of our ranking.

As a result of this, we have slightly reduced the Teaching and Research Environment pillars from 30 per cent to 29.5 per cent and 29 per cent of the ranking, respectively.

Our two reputation-based metrics – teaching reputation and research reputation – benefit from our new reputation survey. This has grown from approximately 10,000 respondents annually to more than 35,000. As well as giving us greater visibility of academics' views, our new approach has enabled us to introduce a cap on the number of votes that can be given to an institution from academics at that same institution.

We still think that academics should be allowed to vote for their own university – they are, after all, committing their future to the institution, often because they believe it is among the best in their field – but this will now be limited to 10 per cent of the total number of votes cast for the university. This will have only a very limited effect in practice, but it does guard against the possibility of undue influence in the future.

Finally, we have altered the normalisation approach for the three measures in the International Outlook pillar to take account of the population of a country.

#### Behind the scenes

Less visible are the changes we have made to the back end of the rankings process. But they are worth mentioning.

We have now fully transitioned to a new rankings engine, one made by and for our rankings team. This allows us to build, experiment and evaluate without the need to bring in our colleagues in software engineering – enabling us to explore the data more easily and to be more responsive to the changing needs of the higher education sector.

Over the next few years, we will be rolling out a new data collection system, which we hope will make the lives of data submitters easier.

We have also devoted more time and energy to data validation than ever before. Every year, we have thousands of discussions with the institutional research teams at universities to validate information that has been submitted. This effort will be expanded as we go forward.

### What impact have the changes had?

As expected, changing the methodology has an effect on the overall ranking. Having stress-tested the changes, we think they have made the results more reliable and have resolved some of the unusual edge cases that we have been (correctly) criticised for in the past, especially around some odd citations results.

The changes to the international metrics are more of a nudge than a huge change, to avoid penalising universities in countries with large populations.

As always when there are changes to the overall methodology, we urge readers to be careful when making direct comparisons to previous years.

I would like to thank the World University Rankings advisory board for their input, which has been thoughtful and definitely helped us to revisit some assumptions. We have now fully transitioned to a new rankings engine, one made by and for our rankings team

STOCK MONTAGE

# A sharper image

From information gathered from institutions worldwide, we compile our World University Rankings. For our 20th edition, we have made some significant updates

 

 30%
 Research quality

 Citation impact: 15%
 Research strength: 5%

 Our research quality pillar looks at universities' role in spreading new knowledge and ideas.
 Research excellence: 5%

 We examine citation impact by capturing the
 Research influence: 5%

We examine citation impact by capturing the average number of times a university's published work is cited by scholars globally. This year, our bibliometric data supplier Elsevier examined more than 134 million citations to 16.5 million journal articles, article reviews, conference proceedings, books and book chapters published over five years. The data include more than 27,950 active peer-reviewed journals indexed by Elsevier's Scopus database and all indexed publications between 2018 and 2022. Citations to these publications made in the six years from 2018 to 2023 are also collected.

The citations help to show us how much each university is contributing to the sum of human knowledge: they tell us whose research has stood out, has been picked up and built on by other scholars and, most importantly, has been shared around the global scholarly community to expand the boundaries of our understanding, irrespective of discipline.

The data are normalised to reflect variations in citation volume between different subject areas. This means that institutions with high levels of research activity in subjects with traditionally high citation counts do not gain an unfair advantage.

We have blended equal measures of a

country-adjusted and non-country-adjusted raw measure of citations scores.

Three new research quality measures have been added in 2023. Research strength calculates the 75th percentile of fieldweighted citation impact – a very robust guide to how strong typical research is.

Research excellence looks at the number of research publications in the top 10 per cent for field-weighted citation impact worldwide – a guide to the amount of world-leading research at an institution. It is normalised by year, subject and staff numbers.

Research influence helps us to understand when research is recognised in turn by the most influential research in the world – a broader look at excellence. The idea behind the metric is that the value of citations is not equal: a citation from an "important" paper is more significant than a citation from an "unimportant" one. We use an iterative method to measure the importance of a paper by not only counting the number of citations but also taking into account the importance of the citing papers. We also consider the subject of the research, as different disciplines have different citation patterns.

The *Times Higher Education* World University Rankings are the only global performance tables that judge research-intensive universities across all their core missions: teaching, research, knowledge transfer and international outlook.

This year's methodology, for the 20th edition of the World University Rankings, has been significantly updated, so that it continues to reflect the outputs of the diverse range of research-intensive universities across the world, now and in the future.

We have moved from 13 to 18 carefully calibrated performance indicators to provide the most comprehensive and balanced comparisons, trusted by students, academics, university leaders, industry and governments. One of the metrics (study abroad) currently has zero weight but will be counted in future (see below).

The performance indicators are still grouped into five areas, although the names of these have been tweaked: Teaching (the learning environment); Research environment (volume, income and reputation); Research quality (citation impact, research strength, research excellence and research influence); International outlook (staff, students and research); and Industry (income and patents).



The most recent Academic Reputation Survey (run annually, this year conducted by *THE*) that underpins this category was carried out between October 2022 and January 2023. We have run the survey to ensure a balanced spread of responses across disciplines and countries. Where disciplines or countries were over- or under-represented, *THE*'s data team weighted the responses to fully reflect the global distribution of scholars. The 2023 data are combined with the results of the 2022 survey, giving more than 500,000 votes to universities in 166 countries. Votes come from more than 68,000 cited academics.

As well as giving a sense of how committed an institution is to nurturing the next generation of academics, a high proportion of postgraduate research students also suggests the provision of teaching at the highest level that is thus attractive to graduates and effective at developing them. This indicator is normalised to take account of a university's unique subject mix, reflecting that the volume of doctoral awards varies by discipline.

Institutional income is scaled against academic staff numbers and normalised for purchasing-power parity (PPP). It indicates an institution's general status and gives a broad sense of the infrastructure and facilities available to students and staff.

#### **Exclusions**

Universities can be excluded from the World University Rankings if they do not teach undergraduates, or if their research output amounted to fewer than 1,000 relevant publications between 2018 and 2022 (with a minimum of 150 a year). Universities can also be excluded if 80 per cent or more of their research output is exclusively in one of our 11 subject areas.

Universities at the bottom of the full online table that are listed as having "reporter" status provided data but did not meet our eligibility criteria to receive a rank.

#### **Data collection**

Institutions provide and sign off their institutional data for use in the rankings. On the rare occasions when a particular data point at a subject level is not provided, we use an estimate calculated from the overall data point and any available subject-level data point. If a metric score cannot be calculated because of missing data points, it is imputed using a conservative estimate. By doing this, we avoid penalising an institution too harshly with a "zero" value for data that it overlooks or does not provide, but we do not reward it for withholding them.

#### Getting to the final result

Moving from a series of specific data points to indicators, and finally to a total score for an institution, requires us to match values that represent fundamentally different data. To do this, we use a standardisation approach for each indicator, and then combine the indicators in the proportions we detail on these pages.

The standardisation approach we use is based on the distribution of data within a particular indicator, where we calculate a cumulative probability function, and evaluate where a particular institution's indicator sits within that function.

For most metrics, we calculate the cumulative probability function using a version of Z-scoring. The distribution of data in the metrics on teaching reputation, research reputation, research excellence, research influence and patents requires us to use an exponential component.



The most prominent indicator in this category looks at a university's reputation for research excellence among its peers, based on the responses to our annual Academic Reputation Survey (see left).

Research income is scaled against academic staff numbers and adjusted for purchasing-power parity (PPP). This is a controversial indicator because it can be influenced by national policy and economic circumstances. But income is crucial to the development of world-class research, and because much of it is subject to competition and judged by peer review, our experts suggested that it was a valid measure. This indicator is fully normalised to take account of each university's distinct subject profile, reflecting the fact that research grants in science subjects are often bigger than those awarded for the highest-quality social science, arts and humanities research.

To measure productivity, we count the number of publications published in the academic journals indexed by Elsevier's Scopus database per scholar, scaled for institutional size and normalised for subject. This gives a sense of the university's ability to get papers published in quality peer-reviewed journals. From the 2018 rankings, we devised a method to give credit for papers that are published in subjects where a university declares no staff.

The ability of a university to attract undergraduates, postgraduates and faculty from all over the planet is key to its success on the world stage. In the third international indicator, we calculate the proportion of a university's total relevant publications that have at least one international co-author and reward higher volumes. This indicator is normalised to account for a university's subject mix and uses the same five-year window as the "Research quality" category.

Large countries have been disadvantaged compared with small countries in our international metrics, in that it is "easier" for staff and students in small countries to work or study abroad. This has led us to change our normalisation approach for the three measures in 2023, henceforth taking into consideration the population of a country when evaluating these metrics.

A study abroad metric - assessing the provision of international learning opportunities for domestic students complements the International Outlook pillar, but is currently given a weight of 0 per cent. The zero weight is a temporary provision due to the impact of Covid-19 on international travel.



A university's ability to help industry with innovations, inventions and consultancy has become a core mission of the contemporary global academy. The industry income metric seeks to capture such knowledge-transfer activity by looking at how much research income an institution earns from industry (adjusted for PPP), scaled against the number of academic staff it employs.

The metric suggests the extent to which businesses are willing to pay for research and a university's ability to attract funding in the commercial marketplace - useful indicators of institutional quality.

But the extent to which universities are supporting their national economies through technology transfer is an area that deserves greater recognition. The patents metric, introduced in 2023, is defined as the number of patents from any source that cite research conducted by the university.

The data are provided by Elsevier and relate to patents published between 2018 and 2022 (not research published between these dates). Patents are sourced from the World Intellectual Property Organisation, the European Patent Office, and the patent offices of the US, the UK and Japan.

This measure is subject-weighted to avoid penalising universities producing research in fields low in patents, and scaled for institutional size.

# Tradition meets tomorrow

For 150 years, we've been etching our legacy into the records of history. Today, we stand proud as the 88th leading university in the world.

At the University of Adelaide, we unite and serve those striving to change the world-and themselves-for the better. Located in the heart of one of Australia's most liveable cities, our institution serves as a beacon of innovation and growth.

Among those who've found their intellectual home here are five Nobel Laureates, including Howard Florey for his role in the development of penicillin, 14 knights, and over 100 Rhodes Scholars.

Our forward-thinking approach has propelled us to the forefront of academia and research. We were our country's first university to welcome female students. The first to offer degrees in science and business. And it's our honour to have paved the way for Australia's first female prime minister and Supreme Court judge.

The University of Adelaide is more than an educational institution; it's a global network with over 300 partnerships worldwide. Our Adelaide Health and Medical Sciences building resides in the heart of Adelaide BioMed City, the largest health and medical research precinct in the Southern Hemisphere, and our fertility research spans 60 years.

Our picturesque Waite campus, complete with its own fully functioning vineyard, is home to the Southern Hemisphere's biggest concentration of agriculture and wine research expertise.

With a legacy of making history and a future that promises the same, we remain committed to driving change, fostering innovation, and redefining boundaries.



adelaide.edu.au



88th ranked university in the world



150 years of research excellence



Nobel prize winners



Over 300 global partnerships



First female prime minister





## Hong Kong and the Netherlands lead new *THE* metrics measuring research strength, excellence and influence, reports Tiya Thomas-Alexander

ong Kong and the Netherlands are the world's top-performing countries for research quality, according to new *Times Higher Education* metrics giving fresh insight into the shape of research at universities.

The THE World University Rankings' newly renamed research quality pillar, which previously only measured the citation impact of universities, includes new metrics to consider not just the number of times a university's published work is cited by scholars globally, but also the number of publications in the top 10 per cent for fieldweighted citation impact worldwide (research excellence). Further, it tracks when research is recognised in turn by the most influential scholars in the world (research influence).

With an average score of 91.6 out of 100 for Hong Kong and 87.4 for the Netherlands, the two countries lead the table for research quality, when countries with six or more institutions are considered. As well as leading the overall pillar, the two countries achieve the highest average scores for the new research excellence and research influence metrics (although the Netherlands is slightly ahead of Hong Kong on these).

The new metrics give nuance to the understanding of research quality in these nations, and their top scores signal that they are the strongest players not only in terms of the overall quantity of research citations (which could be a result of a small number of highly-cited papers), but also in terms of the amount of world-leading research and the number of citations from the most influential research papers.

ili Yang, an assistant professor at the University of Hong Kong's Faculty of Education, says that a major reason for Hong Kong and the Netherlands' highquality research is that both systems are small but mighty. Hong Kong has eight government-funded universities, six of which are ranked in the World University Rankings 2024 (five of those feature in the top 100). The Netherlands has 12 ranked universities, all of which make the top 250.

Yang says that Hong Kong's lead in research quality may be traced to "the overwhelming emphasis on each individual researcher's research performance at Hong Kong universities".

"Relevant bibliometric data are used by senior managers in keeping track of the universities' overall research performance and are considered in research performance evaluation," she says.

Simon Marginson, a professor of higher education at the University of Oxford, says that universities in both Hong Kong and the Netherlands have been "designed" with a system-wide approach to improving research standards. As a result, "there's a significant group of high-quality research universities, rather than a smaller elite group", he explains.

"Extreme hierarchy and stratification between institutions is less good for overall system performance," he says, citing the US as an example.

While the US has leading institutions, it underperforms in research when scores are adjusted for population size. Six of the top 10 universities for research quality are in the US, with the Massachusetts Institute of Technology the nation's leading performer. But the average

Extreme hierarchy and stratification between institutions is less good for overall system performance score for research quality for the US is 74.4 – much lower than that for Hong Kong, the Netherlands and even larger countries like Australia (which has a score of 84.0).

When looking at metric-level performance, Hong Kong has the top score of 96.6 for research strength, a new metric based on the 75th percentile of field-weighted citation impact, indicating the strength of typical research at an institution. The United Arab Emirates ranks second with 88.4 and the Netherlands follows very closely with 88.0.

In the metric for research excellence or the amount of research in the top 10 per cent worldwide, the Netherlands leads with 98.9, followed by Hong Kong with 98.2 and Finland with 93.0.

The third new metric on research influence is also led by the Netherlands with 97.2, followed by Hong Kong with 96.0 and Denmark with 91.0.

Raymond Poot, associate professor of cell biology at Erasmus University Rotterdam, says that the Netherlands' strategy since 1991 has been to handpick scientists based on their citations and publications in high-profile journals. He adds that the European Research Council was modelled on the talent competitions at the Dutch Research Council (NWO), attesting to the system's success.

Poot has also examined research output in relation to the societal benefit or the wider impacts of research, including economic growth, innovation and patents, as well as insights that cannot be patented.

"Both on output numbers and societal benefit, [the Netherlands'] strategy appears to pay off," he concludes.

"A frequent misunderstanding is that the number of citations and publications in high-profile journals are separate entities from societal benefit. They are not. On the big numbers [of citations] they are two



sides of the same coin."

Salvatore Giusto, a postdoctoral fellow at the University of Amsterdam's department of European studies, says that from a researcher perspective, the Netherlands' system is good at backing research with funding for open-access publishing. In his eyes, this can offset the pressures faced by researchers in a competitive system.

"This type of support is important because it can counterbalance both the greed of publishers and also the publish-or-perish ideology," he says. Research that is published open access also has a higher chance of being found, read widely and then cited.

Giusto, who is of Italian origin, believes that the research culture in the Netherlands also benefits from the diversity of scholars at its universities. He says that the Dutch academic space can be like "a bridge between the Anglo-Saxon world and the European continental word" and this spurs research and publishing in a way that is not ethnocentric. This is helped by the fact that the Dutch are "informally bilingual".

While the Netherlands and Hong Kong lead the new metrics, other nations have seen a boost in their scores at the pillar level now that it provides a more comprehensive assessment of research quality beyond field-weighted citation impact. Among these are Australia, Italy, Slovakia, South Korea, Brazil, South Africa and Canada.

Meanwhile, some countries have seen a dip, signalling that despite having a high overall quantity of citations, they produce less worldleading research and are less influential in the knowledge economy. These include Saudi Arabia, Colombia, Iran and Nigeria. Most European countries have improved in research quality compared with last year, with the UK, Italy and Germany making the highest gains. However, France's score in this area continues its decline since the 2020 edition of the rankings - although its score remains higher than the world average.

Oxford's Marginson says that ultimately, for both individual universities and country systems, research performance comes down to "quantity of quality". The Netherlands and Hong Kong, he says, lead "a small group of very strong, small and middle-sized research countries that outperform everyone else on a unit-by-unit basis".







**World University** 

Rankings 2023

Young

World University Rankings 2023 by Subject



100001 10000

World University Rankings 2023 Asia

Times Higher Education
Impact Rankings 2023

## A LEADING UNIVERSING UNIVERSITY RECOGNIZED FOR EXCELLENCE

امـعــة أبــوظــبــي 💥 Abu Dhabi University



R

Knowledge to Achieve and Wisdom to Lead





in the UAE for the Teaching Pillar



the UAE for Research ence/Citations



Best University in the UAE



/ersity in THE Young

Rankings

0 Years)





Best University in all of Asia in THE Asia Rankings

Globally for Research Citations



)**1-350** / in THE World University ts 2023 **301-400** in THE Impact Ranking for Sustainability

As Ranked by: TIMES HIGHER EDUCATION WUR 2023

Call: +97125015555 www.adu.ac.ae





## CHOOSE YOUR PATH FOR A SUSTAINABLE CAREER

Ranked Number One in Nigeria in the Times Higher Education Impact Rankings, Afe Babalola

University offers Open and Distant Learning academic programs in eight colleges: Sciences, Law, Engineering, Pharmacy, Social and Management Sciences, Medicine and Health Sciences, the ABUAD Business School and Postgraduate Studies. The Engineering College built on three and half acres of land and is reputed to be one of the largest in Africa.

## **Discover more:**







## A modern, student-focused university engaged in ground-breaking research

A University built on the ethos of delivering distinct education, developing ground-breaking research, enhancing partnerships and social responsibility through a stimulating academic environment, great calibre human resources, cutting-edge technology, effective strategic partnerships and a supportive administrative system.

 $\cdot$  More than 20 colleges  $\cdot$ 

- 6 Campuses •
- 70+ Academic programs •
- 28,000+ Students from 27 nations •
- 2,200+ Faculty members from 22 nations •

151 - 200



## Discover more: www.psau.edu.sa





psau\_edu\_sa

psau.edu.sa

# **Research leading lights**

### European nations have the highest research income levels, but Hong Kong and Australia surpass them in productivity, reports Tiya Thomas-Alexander

A ustralian universities are punching above their weight in their research output, *Times Higher Education* data suggest.

The country receives an average research productivity score of 96 out of 100 in the *THE* World University Rankings 2024, the second highest in the world. This is despite ranking 16th for research income globally.

The research productivity metric is a tally of the number of publications per scholar over a five-year period (between 2018 and 2022 for the 2024 rankings), normalised for subject and scaled for institution size.

Scientific research in Australia has historically been heavily financed from international student fees, due to weaker public funding for science in the country. There have been concerns that the Covid-19-induced decline in foreign recruitment would harm Australia's research performance, but there have so far been no signs of this decline in the rankings.

European countries continue to lead the way globally when it comes to universities' levels of research income, with Asian systems picking up pace. As shown by the time series chart below, seven out of the top 10 countries for research income this year, based on their average metric score in the World University Rankings, are in western or northern Europe.

Belgium, the Netherlands and Germany have the highest scores for research income when looking at institutions continuously ranked for a five-year period starting in 2020. The analysis only included countries with at least six ranked institutions, while the score for the 2024 ranking is based on figures from 2022.

The research income metric is adjusted for purchasing-power parity and scaled for academic staff numbers, to give a picture of the resources at hand to fuel research.

In addition to the European nations, three Asian countries have high research budgets: Hong Kong, South Korea and Taiwan.

When looking at the five-year trend, the highest jumps in research income scores have been for Finland, South Korea and Taiwan, demonstrating that Asia is on the rise.

The shape of the graph shows mostly consistent growth for four years with an upward slant for many nations since last year, particularly Finland, South Korea and Denmark.

While Belgium saw a slight dip from 2020 to 2021, research income levels in the country are now at their highest point in five years.

But even though European nations have some of the highest research incomes, the research productivity scores show that high research output is seen across the world. While the Netherlands and Belgium led the world on this measure in 2020, Hong Kong and Australia now have the top

productivity scores, as captured in the second graph.

Similarly, Canada, New Zealand and South Africa also feature in the top 10, despite their lower levels of research income, telling of the global win for research productivity.

In the five-year period, Ireland, South Africa and New Zealand have seen the most significant improvement in their scores for research productivity. The Netherlands is the only nation on the list that has seen a drop in its average research productivity score (by 1.4 points). Even though European nations have some of the highest research incomes, high research output is seen across the world



28 September 2023 Times Higher Education 99



## The Forefront of Innovation Translating Engineering Potential into Technological Advances

In its purest form, graphene offers myriad applications. It is a unique material comprising densely packed carbon atoms arranged in a hexagonal honeycomb lattice—known mostly to the public as the layers of material that make up pencil lead. It is extremely versatile and has potential applications in various fields, particularly thanks to its superior optical, electrical, thermal and mechanical properties.

Khalifa University is at the forefront of translating potential into technological advances that help solve the world's most pressing engineering challenges. Supported by award-winning faculty and access to the region's most advanced laboratories, Khalifa University researchers are investigating the potential applications of graphene in innovations such as blood glucose monitoring devices, desalination, electrocatalysts and next-generation batteries.

Are you ready to join one of the fastest growing universities in the world?



# Hustle is the name of the game

## Folasade Ogunsola tells Tiya Thomas-Alexander of her country's battle with brain drain and universities' hustling for 'creative' ways to find more money

n 2003, Folasade Ogunsola was on the cusp of giving up her academic career. But then, in the midst of Nigeria's military regime, she received a research grant. For days afterwards, she recalls, she had a "spring in her step" as she made her way to her clinic by the beach.

At the time, the infectious diseases expert was in her early thirties. Alongside her university teaching position, she worked in Lagos as a researcher and doctor with a local community of HIV-positive sex workers, who had been pushed closer and closer to the water on the fringes of the expanding coastal capital. Decades later, Ogunsola, who is now vice-chancellor at the University of Lagos, credits this early work with keeping her in academia.

"When you're doing pure clinical microbiology, you can do it alone," she says, noting the contrast with fieldwork, which requires knowledge of various branches of science, including epidemiology and sociology, and a sense of "how you enter into the community".

After starting out as a medical doctor, Ogunsola received her three-year research grant funded by the Bill and Melinda Gates Foundation to study HIV. The work helped her to understand what gets her fired up: "people-centred" research that has an "end point with a problem to solve".

For Ogunsola, her field experience contained a valuable takeaway. She realised that when research is trying to answer questions that affect people directly, diversity is important and that for "different perspectives, you need different experts".

She recalls an instance in which patients stopped visiting her clinic in favour of traditional birth healers. Ogunsola then brought in a sociology professor who engaged with the healers and convinced them to direct their charges to the clinic if they did not improve. The number of patients turning up to the clinic doubled.

In 2022, when Ogunsola (pictured inset) became the first woman to lead the University of Lagos, following earlier roles as the deputy vice-chancellor and, previously, the first female provost to run the institution's College of Medicine, she had already faced a hefty dose of the sector's challenges. During her first year at the public institution, she saw almost three staff leaving each week, a symptom of the brain drain ravaging Nigeria's higher education system.

This mass exodus, known in the country as "japa" – the Yoruba term for "run" or "escape" – is especially prevalent among young people in fields such as medicine,

You're working with one hand tied behind your back



engineering and financial technology. Popular destinations include the US, the UK and Canada. The loss of talent, Ogunsola says, has been "really scary", reaching a peak in 2022. It is the first thing that comes to mind when she speaks about the challenges to the institution's research capabilities.

"Earlier this year, I would have said we're haemorrhaging staff and students – staff in particular," she reflects.

Still, she's hopeful that this will improve. This June, Nigeria's president Bola Tinubu, who recently came into office, signed a bill allowing universities to collect student fees – a big change for a sector that has spent years relying on government funding without charging students. A loan system for students who cannot afford to pay for higher education is also in the works, with universities awaiting the details. Ogunsola expects it to bring more financial stability for institutions.

But even if the relentless pace of emigration has somewhat slowed in recent months, there are plenty of reminders that it's a "real and present problem". In the week Ogunsola speaks to *Times Higher Education*, she receives two letters of resignation from staff moving abroad.

t's not just that young researchers are leaving; universities are also having a hard time making ends meet, says Ogunsola.

"You're working with one hand tied behind your back," Ogunsola says. She believes the situation has made leaders like her "creative" in the hustle to find more revenue streams.

In the current environment, universities are looking to alumni to provide financial support – a move that was unheard of just two decades ago. There is a push to secure funds from industry and universities abroad. The fruits of such collaborations can already be seen on campus. For instance, Lagos has a new fabrication lab thanks to funding from the French government; it also boasts a design laboratory, set up in collaboration with Rice University in the US.

To supplement revenue, the university has also created a number of businesses. Water sourced from a deep borehole on campus is bottled and sold under the "Unilag" brand. Also on site is a bakery that produces bread for sale. During the pandemic, the university started building ventilators and filters. Other ventures include a pharmaceutical company, a printing business and an enterprise selling fish from ponds belonging to its department of marine science and fisheries. Most recently, it has built its own electric cars, which it is looking to market.

Ogunsola finds herself juggling her aim of keeping education standards high with having to "run around quite a bit" to secure funding. Still, she believes the struggle has forced her and her peers to be quick to adapt and innovate. She wonders whether perhaps it is this resilience of vice-chancellors that has made the financial pressures seem smaller than they are. "Maybe if we had just sat down and allowed [our universities] to crash, somebody would have rescued us earlier," she jokes.

But even with more funding, high-end journals and equipment are often out of reach.

"Some grants are so specific and would require some equipment that you don't have access to," the vicechancellor says. Even Ogunsola, an institutional head, often calls on friends and colleagues at universities in the West for institutional access to an article in a journal.

She compares the reality in Nigeria to doing her PhD in the UK, at the University of Wales.

"When I was in Cardiff, you could get equipment on lease and, when the new one comes out, you trade one in for the other," she recalls. "Here, you have to make an investment in the multibillions. You're a poorer country, but you need to bring out everything. You don't have the luxury of leasing."

She and her colleagues are working to change the status quo where less-resourced countries are left behind. Earlier this year, the University of Lagos was one of 400-odd universities that signed up to the Africa Charter for Transformative Research Collaborations, looking to bring in more policy reform and raise the participation of African countries in global research.

Ogunsola says that this could mean exciting things for collaboration, particularly within the continent. "We're beginning to break down some of the colonial structures that divided us because, really, there was a lot of division."

Illustrative of the divide is the fact that many Nigerians know more about the UK and the US than they do about their African neighbours, she says. By collaborating regionally, she says, she expects that there will be opportunity to learn from nearby countries, many of which face similar challenges in their higher education systems.

Recently, her university welcomed 10 scholars from Namibia, Tanzania and Uganda. A new block of self-contained flats on campus has also been built, in the hope that more international visitors will feel welcome visiting the university. She describes the gated community and the feeling of a "real campus".

"We've been preparing for international visitors. And they are beginning to come." • We're beginning to break down some of the colonial structures that divided us





# siksha 'o' anusandhan (soa) EMPOWERING STUDENTS

iksha 'O' Anusandhan, popularly known by its acronym SOA, is one of the largest multidisciplinary universities of India. SOA came into existence on July 17, 2007 when the Education Ministry conferred on it the status of a Deemed to be University under Section 3 of the UGC Act, 1956. It has emerged today as a centre of superlative professional education with its focus on research.

The multi-campus infrastructure of SOA is home to more than 14,000 students, including from other countries, who have chosen the Deemed to be University to chart out a future for themselves.

### RANKING AND ACCREDITATION

Though just over a decade and half old, SOA has continuously figured in the list of top universities of the country as per the National Institutional Ranking Framework (NIRF) rankings having found place in the top 20 institutions of higher education on six occasions since 2016.

SOA was ranked 15th in the country by NIRF India Rankings-2023. Besides, it has also been ranked 27th in Engineering Category, 16th in Medical Category, 9th in Dental Category, 8th Law Category, 57th in Management Category and 49th in Research Category, in NIRF India Rankings-2023. SOA has been re-accredited by National Assessment and Accreditation Council (NAAC), Govt. of India, with the highest grade of 'A++' in 2022.

SOA has been globally ranked by the prestigious Times Higher Education (THE) consistently over the last few years.

The Engineering programs have been accredited by NBA, Govt. of India. The Agricultural program has been accredited by ICAR, Govt. of India. IMS and SUM Hospital has been accredited with NABH & NABL.

#### R E S E A R C H

SOA's focus being on research, it has set up 18 research centres which have been working in 26 identified thrust areas. Some of the ongoing research work is supported by grants sanctioned by several external agencies including the Department of Science and Technology (DST), Department of Biotechnology (DBT), Defence Research and Development Organisation (DRDO), Science and Engineering Research Board (SERB), Life Science Research Board (LSRB) and Council for Scientific and Industrial Research (CSIR). 58 research laboratories have been established besides the 18 research centres to develop the research ecosystem in the campus.

Researchers at SOA have developed simple economical and innovative pharmaceutical formulations to treat various chronic medical conditions for which the



# STRIVE | OBSERVE | ADAPT



# FOR A BRIGHTER FUTURE

Deemed to be University has recently signed technology licensing agreement with the National Research Development Corporation (NRDC) of the Ministry of Science and Technology.

Work of the faculty members and research scholars regularly get published in reputed peer reviewed international journals. The university has 11,188 Scopus indexed publications to its credit so far with h-Index of 99. In Web of Science, it has 6,322 publications with h-Index of 87. Researchers at SOA have so far applied for more than 400 patents of which 38 patents have been granted.

### NABH ACCREDITED SUM HOSPITAL

SOA's faculty of medical sciences runs the 1828 bedded SUM Hospital which has become one of the most soughtafter healthcare centres in the state. The USP of the teaching hospital, which deploys excellent modern and advanced diagnostic, surgical and lifesaving equipment, is that it extends quality medical facilities for patients at affordable cost. A separate multi-specialty hospital, SUM Ultimate Medicare has been set up by SOA in Bhubaneswar which extends state-of-the-art healthcare to the people.

### STUDENTS AND INFRASTRUCTURE

Students at SOA are encouraged to engage in creative work and learn to serve people in need. Student Clubs and

## DISCOVER MORE: WWW.SOA.AC.IN

Activity Centres promote extra-curricular activities to explore the hidden talent in the student for personality development. 'Jaago', an initiative of the university with students in the forefront, has been working among slum children taking care of their education, nutrition and hygiene.

The infrastructure developed by the university includes a 1600-seat state- of-the-art convention hall which is today the preferred venue for many international and national level conferences.

SOA's 127 acre fully wi-fi campuses have a total built up area of nearly 7.5 lakh square meters and has 197 e-enabled class rooms, 340 PG and UG labs, fully automated libraries with ample Print Learning Resources, 10 student activity centres and multiple ISP connectivity (more than 10 Gbps). It has one central library, 10 institutional and 42 departmental libraries.

#### PROGRAMMES OFFERED

Presently SOA offers 26 Undergraduate and 85 Postgraduate, Ph.D. and Post-Doctoral programs in engineering and technology, management, medical sciences, dental sciences, nursing, pharmaceutical sciences, basic sciences, biotechnology, hospitality and tourism management, law, agricultural sciences and veterinary sciences. New research courses/programmes have been added for which the strength of students and faculties are increasing.





Universitas Andalas (UNAND) is one of the best universities in Indonesia. It has set its mission as one of the best World Class Universities (WCU). To this end, all lecturers, students, academic communities, and stakeholders perform their utmost efforts in various programs and activities.



Times Higher Education 2023

UNAND welcomes prospective students from various countries around the world. International students are admitted via three mechanisms: self-support, University to University programs, and UNAND scholarships.

Self-support is offered for international students who fund their own education. University to University program is a reciprocal program in which UNAND will waive the tuition fee for students from university partners. UNAND scholarship is provided by UNAND for international students, covering tuition fees, dormitory, and a monthly stipend. The UNAND scholarship is restricted to one international student for each study program, either for the bachelor, master, or doctoral degree. In the last decade, UNAND has seen an increase in foreign students coming from Southeast Asia, Europe, Australia, Africa, and South America countries. They were enrolled in various study programs, particularly in the master's or Ph.D. by research programs.

This year, UNAND organizes several Summer Course Programs. The programs include learning about Primate Behavior, Primate Conservation, International Nursing Camp, Minangkabau for the Global Community, Fast Fashion Industries, Climate Change, Mitigation of Environmental Impact, Trekking the Patches of Minangkabau Matrilineal Culture, Traditional Knowledge of Minangkabau People, and Intellectual Property Rights Protection. The relevant study programs organize these programs.

In June 2023, UNAND, through its related faculties, hosted a Summer



Course program attended by international students from Cambodia, Vietnam, and Malaysia. They were introduced to various new concepts and insights in the fields of Medicine, Economics, Engineering, Mathematics and Natural Sciences, Pharmacy, and others.

UNAND has so far had many of its bachelor study programs internationally accredited, including Management, Development Economics, Accounting, Pharmacy, Medical, Biology, Physical, Mechanical Engineering, Electrical Engineering, Industrial Engineering, Environmental Engineering, Indonesian Literature, Japan Literature, Computer Engineering, and Chemistry. Its postgraduate study programs, Management and Biology, have also been internationally accredited. These study programs have been accredited by international accreditation bodies, such as AUN QA, FIBAA, ABEST, ASIIN, ABET, IABEE, and RSC.

UNAND has been recognized for its excellence and achievement in many fields. For example, it topped the chart for top patent applications from 2020 until 2022 in Indonesia. Its research product, Gambier Ink, has also been widely used by industries in Indonesia, and in particular, it is used for papers related to the 2024 presidential election logistics. UNAND is also proud of its most modern integrated laboratory in Sumatra. The learning systems are supported by smart classrooms in faculties, enabling online, offline or hybrid classes attended by participants from world-wide. UNAND is also equipped with a Living-Laboratory (Living-Lab), which opens opportunities for researchers to explore and utilize indigenous natural resources for research. UNAND is also unique as it is the only University that runs graduate program in Disaster Management. UNAND has mainly been the trendsetter for research and teaching in the agroindustry sector, especially for the cash crop sector.

#### Field of Study offered in English

- B.A. in Economics
- B.Eng. in Mechanical Engineering
- B.Sc. in Agribusiness
- PhD. in Development Studies
- B.A. in English
- B.Eng. in Industrial Engineering
- B.Sc. in Physics

#### Contact Info

- wcu@unand.ac.id io@adm.unand.ac.id
- +62 751 71181 +62 812 8463 169

- B.Sc. in Mathematics
- M.Si. in Natural Resources Management
- B.Sc. in Chemistry
- B.A. in Management
- B.A. in Accounting
- Master of Management
- B.Sc. in Biology



www.unand.ac.id


#### Indonesia has made big gains on student-staff ratio, while Hungary has a higher share of postgraduate researchers, writes Tiya Thomas-Alexander

ndonesian universities now have the lowest student-staff ratios in the world, on average, according to the latest *Times Higher Education* World University Rankings data.

The country's score on this metric has grown by 42 per cent over five years to 82.4 out of 100, propelling it to the top spot globally this year. The analysis only included countries with at least six ranked institutions, and only examined institutions that have been continuously ranked since 2020. Tunisia and Ukraine also saw notable improvements in this metric, which comes under the teaching pillar for the World University Rankings.

Meanwhile, Hungary has seen a dramatic rise in its average doctorate-to-bachelor ratio since 2020. Its score has increased from 43.9 in 2020 to 78.6 in the latest ranking.

However, Switzerland is at the helm for this metric, sealing a fiveyear-long trend. Most recently, its score jumped to 85, up from last year's 71.9. The measure helps gauge the proportion of postgraduate researchers, which can give an indication of the teaching level at an institution as well as the scope to develop and attract graduate students.

Germany, Hungary and India follow behind the Swiss universities for this metric, in that order.

Despite shifting trends since 2020, all nations in the top 10 this year have been on an upward trajectory over the past year, reflecting minor methodology changes.





CarbonNeutral.com





## To make a better world through excellence in Higher Education, Research & Innovation





# A campus that calls out to students

Focusing on the quality of in-person teaching is only one way to make returning to physical campuses more appealing, says Carolyn Evans

s we reconstruct the university experience after the Covid pandemic, the question of how we get students to return to campus is increasingly asked. The current generation of university students has experienced fragmented in-person education, disrupted by lockdowns and border closures, in addition to increased financial pressures that require working extended hours. The combination of becoming accustomed to the convenience of online learning and being unfamiliar with the benefits of campusbased study, as well as cost-of-living pressures, means student attendance can no longer be taken for granted.

Fundamental to supporting students to return to campus are rich, engaging educational offerings on campus, and this has been written about extensively. There are, however, some other factors worth exploring.

The first is that there is a binary nature to some of the discussion that deserves to be challenged. Students are said to be either on campus or learning remotely. Study is either in person or it is online. Yet the post-Covid world is more complex and interesting than these binaries suggest.

Those who study predominantly online might still benefit from short periods of intense in-person study (for example at the start of a degree or for a capstone). The Australian government recently announced A\$67 million (£35 million) to extend a network of Regional University Centres to additional underserved areas. These regional study hubs allow those studying online at a variety of universities to access reliable internet, support and a cohort of peers, which has been shown to increase participation and retention in areas with low university enrolment.

Likewise, those studying predominantly face to face will still expect to do so in a digitally rich environment. Pharmacy students at Griffith University, for example, spend part of their on-campus time in a highly sophisticated virtual environment that teaches them modern pharmaceutical practices. They engage in a three-week competition that involves them running their own virtual pharmacies in small groups, competing against one another and students from Malaysia. This type of learning experience draws on the best of both physical and digital learning and prepares students for workplaces where they will need to be able to move seamlessly between these two worlds.

In-person education is also no longer solely campus-based; important learning experiences take place in a wide variety of settings. Such experiences, of course, include the clinical placements and internships that are now a key part of most degrees, as well as international study. Yet they extend beyond these.

At Griffith, in addition to attending classes on campus, students are working on joint projects in a startup lab in an innovation precinct,



**Carolyn Evans** Vice-chancellor and president, Griffith University

# **Discovering antiviral treatments**

### with computer-led research

#### Alfaisal University's College of Science is using computational modelling and Artificial Intelligence in the search for clinical treatments for Covid-19

r Souraya Goumri-Said, an associate professor of physics, deploys quantum methods and molecular simulations to observe the docking between molecules at the most basic scale, building modelling systems to test the efficacy of antiviral drugs and other therapeutics.

"Scientists are spreading information across the scientific communities. With Covid, we were lucky to have access to the structure of the RNA, and from this we have the protein, which is what we are targeting," said Dr Goumri-Said.

With new Covid-19 mutations appearing, finding effective treatments that will complement medicine's arsenal of vaccines will be critical to minimising the impact of the virus. Dr Goumri-Said's methodology looks at how the chemical structure of the virus is affected by a drug to discover how to thwart the progress of the virus. Antiviral drugs operate differently from vaccines - the vaccine is developed to stop infection, the antiviral is used once infection has been established, targeting specific proteins in the virus to inhibit its propagation through the body.

"We are selecting structures and trying to understand how they can interact together and how the drug can bond with and cancel the danger of this virus," says Dr Goumri-Said. Her computational methods also have certain advantages over in vivo testing. Investigations are safer and easier to conduct. With the virus rendered on-screen, there is no need for personal protective equipment or laboratory safeguards that virologists must work under.



For Alfaisal University, this means investment in research infrastructure, developing new tools to build on its life science expertise, bringing biology and chemistry together with physics and materials science to tackle problems at scale. The pandemic is humanity's most pressing problem right now. It will not be the last.

Alfaisal University

To find out more about Alfaisal's life sciences programme, visit: www.cos.alfaisal.edu/en/ug-program

on boats protecting the marine environment, in an outback region assisting with increasing tourism, and around the city and beyond developing major public artworks and supporting a regional film festival. As well as developing their understanding of course content, such experiences create a strong sense of cohesion between participants and allow them to demonstrate their skills in real-world settings.

In other cases, the boundaries between the campus and workplaces are becoming more permeable. Earlier this year, the Griffith University musical theatre programme moved into its new home in the Queensland Performing Arts Centre. The students learn in studios that back on to working theatres; they socialise in the same spaces as professional performers and crew; and now nearly half of the cohort have roles working in front-of-house jobs. They are a few minutes' walk from the Queensland Conservatorium, with a fuller range of university campus facilities; for most purposes, however, their classrooms and their current (and potentially future) workplace are in the same facility. Such opportunities certainly create an enthusiasm and motivation for coming to "campus" regularly.

• o the landscape is far more complex than simply on campus or online, and student learning is all the better for it. Yet on-campus learning remains a critical element of most students' education. It has undoubtedly come under pressure from students who through choice or circumstance are either not attending at all or are attending for only short periods.

This is an appropriate time to consider the whole infrastructure of opportunities that make coming to physical campuses worthwhile, beyond the quality of in-person teaching.

Such initiatives must recognise the circumstances in which many students find themselves - some-

GRIFFITH

times with a long commute to campuses, trying to undertake substantial paid work, possibly juggling carer commitments, and struggling with the cost of living. Having the right support services on campus - from reasonably priced food and childcare to medical and psychological care - can be an incentive to come to campus and can make

the cost of study easier. As the Australian government seeks through the Universities Accord process to increase participation of students from low socio-economic backgrounds, it will be important to recognise that students in need will require better access to such facilities, in addition to scholarships and educational support.

There are also actions that universities can take without additional funding. Tackling the complex issue of timetabling to try

to create a consistent couple of days a week that students have their study scheduled can both create time for industry experiences or paid work and make it more worthwhile for students to undertake travel. Working with public transport authorities to better support students in travelling to campus is another small, practical step that can assist those based off-campus.

Finally, working with student clubs and societies to create an ecosystem of experiences is critical to

building a sense of belonging. Lockdowns had a serious impact on many student clubs, whose current generation of leaders have little experience of how to hold events in person and whose membership has often dropped. This is a sensible

time for universities to support those student groups that can make all the difference to students feeling a sense of belonging and give them a reason to attend campus even when classes might be feeling dry or difficult.

Returning students to in-person learning will not be a simple or quick endeavour. Creating highquality experiences both on and beyond campus, making campuses places of care for students who are struggling, and empowering students to create opportunities for one another are important steps in this journey.



Working with student clubs and societies to create an ecosystem of experiences is critical to building a sense of belonging











## **Embracing** the new frontiers of global medicine!

outhern Medical University (SMU) is one of the best known medical universities in China committed to safeguarding the health of mankind for 72 years and counting. SMU has achieved a series of milestones with significant contributions to medical science in brain science, nephrology, hepatology and gastrointestinal surgery.

We warmly welcome collaborations with top universities to continue our pursuit in the new frontier of global medicine.

#### Subjects in ESI Top 1‰

ite in inent in fritte

(Clinical Medicine, Pharmacology & Toxicology)

**13** Subjects in ESI Top 1%

**15** Affiliated Hospitals



#### Expanded industry pillar features strong showing from Ireland, Hong Kong and the US. Tiya Thomas-Alexander rounds up the tech-transfer stars

A new metric tracking university-led patents has thrown the spotlight on institutions that possess a singular bent for innovation with commercial applications.

The industry pillar for *Times Higher Education*'s World University Rankings 2024 introduces a measure for how often a university's research is cited in patents. This expands the pillar from previous years, when a single metric was used: industry income or income that universities received from industry as part of knowledge transfer.

When considering countries with six or more universities, institutions in Ireland, Hong Kong and the US have seen the most improvement in industry pillar scores, indicating their strong performance on patents. Irish institutions experienced the largest increase, with average industry scores jumping from 44.2 out of 100 last year to 72.3 this year.

Hong Kong's universities chalked up the second-highest rise in scores, climbing from 64.9 to 91.4. The country's institutions are also leading with the highest scores for the patent-specific metric,

#### **HKUST HEAD: UNIVERSITIES MUST IGNITE THE SPARKS OF INNOVATION**

Nancy Ip discusses how universities can boost their output of patents and support faulty entrepreneurs

For innovation to thrive, it is important for universities to create an environment where students, faculty and staff can follow their passions, share ideas and collaborate with each other – and with industry.

At the Hong Kong University of Science and Technology (HKUST), we recognise the pivotal role that talent plays in driving innovation, which is why we have recently launched the "30 for 30" talent acquisition campaign. This initiative aims to attract 30 leading experts in key strategic areas that are essential for addressing pressing issues facing humankind and the planet today.

HKUST's efforts to recruit and nurture talent have positively impacted society on various fronts. Through our knowledge transfer pipeline and vast industry network, we empower our members to transform their research into real-world applications. Nearly 30 per cent of our patents are authorised for industrial use, a rate on par with world-leading universities such as MIT. These efforts have led to innovations such as unmanned vessels, drones and self-driving vehicles, among others. Our knowledge

transfer initiatives boost economic growth as well as entrepreneurship. To date, HKUST members have founded over 1,600 active startups, including nine unicorns and 11 successful exits (from initial public offerings or mergers and acquisitions), with an economic impact exceeding HK\$400 billion (£40 billion). To further support our

entrepreneurs, we recently increased the inventors' royalty share from 10-50 per cent to 70 per cent. Our members are also encouraged to showcase their inventions on the global stage. At this year's International Exhibition of Inventions Geneva, the HKUST team garnered 20 awards.

These achievements would not be possible without an innovation ecosystem that facilitates collaboration among multiple parties. We have forged partnerships with governments, world-class labs, academic institutions and organisations to establish cutting-edge research hubs, attracting researchers from diverse backgrounds and areas of expertise.

We have also leveraged policy support from the HKSAR government to bring together expertise from around the world. The government-funded InnoHK initiative, for example, has allowed us to join hands with renowned mainland and overseas institutions such as UCL, École Polytechnique Fédérale de Lausanne and Tsinghua University to establish three pioneering research

recording a near-perfect score of 99.7 out of 100. On patents, the Netherlands was close behind, scoring 99.5.

A total of 112 universities received top marks, 100 points, on the patent metric. Among these standout performers is Israel's Tel Aviv University.

The university has its own technology transfer company, Ramot. It provides professional support to researchers, dealing with intellectual property and commercial aspects of research. Since its inception in the 1970s, Ramot has processed more than 5,000 patent applications; it holds a portfolio of approximately 1,600 patent applications and patents.

In recent years, the company has transitioned from just an outlet helping researchers dot the i's and cross the t's on patent paperwork to become a more proactive matchmaker seeking to create fruitful collaborations between industry and interested researchers.

Ramot approaches companies and asks them for a "dream wish list" of technology solutions that they would like to develop or realworld problems they want to solve, says its chief executive, Keren Primor Cohen.

The wish list is then circulated among researchers at Tel Aviv University. When Ramot connects an interested researcher with a company, they plan a joint research project and seek funding – either



from the company involved or the government.

Cohen says Israel's government "understands" the need for money to bridge the gap between earlystage technology and industry applications.

"The government thinks that there's a lot of gold in academic institutions. And this gold needs to be dug out," she says.

Government support, Cohen explains, carries technology to a more developed stage, lowering the risk for private investors. These investors step in at later stages and take the innovation to market.

But the process of obtaining patents also involves timing.

"When researchers come to us with inventions, most of the time, it's very early," Cohen says. If a patent application is filed prematurely, it might fail.

And while Ramot brings commercial expertise to the research process, being a university company means that it prioritises academic freedom.

This becomes crucial when companies collaborating with Tel Aviv researchers ask for work to be kept confidential and for publication to be delayed until its suits company interests.

"The company can say [to the researcher], 'You will show me the results, and I will tell you if you can publish or not.' This is not something that we can accept as a university," Cohen says.

To protect researchers' academic freedom, Ramot often includes specific conditions in their agreements with industry. For example, it may stipulate that the researcher will send research results to the company 30 days in advance of any intended publication, giving it time to consider a patent. After this point, the researcher is free to publish.

To their credit, Israeli institutions are unafraid that academics establishing start-ups might compromise their research quality – a stance Cohen supports.

"They believe that the more the merrier and that there's a lot to be learned from the industry," she says. "Giving the industry [a] place within the academic setting is a good thing."• The Israeli government thinks that there's a lot of gold in academic institutions. And this gold needs to be dug out

centres at the Hong Kong Science and Technology Park to advance neurodegenerative disease research, AI chip design and automation technologies, and modern robotic methods in construction.

Our world-class institutes, research centres and national



laboratories, such as the State Key Laboratories, support talent growth and provide advanced research platforms. To encourage our members to translate ideas into action. we have transformed our campus into an enormous experimental lab for testing sustainable and smart solutions before they are implemented in the real world.

These are just some examples of how HKUST supports gamechanging frontier research and innovation development. Our Innovation Building, currently under construction, is another vital component of our dynamic innovation ecosystem. We are also planning an additional research building in the biological sciences.

The university's development reached a significant milestone in September 2022, when HKUST (Guangzhou) officially opened. Our Guangzhou campus is designed to facilitate cross-disciplinary studies through four academic hubs - Function, Information, Systems and Society - and 16 research areas, that complement the wellestablished disciplinary fields at our Hong Kong campus. Together, the two campuses form a synergetic platform to provide top-notch education, research, innovation and knowledge transfer while strengthening our ability to tackle pressing societal issues. Looking ahead, we

Looking ahead, we plan to establish an HKUST Innovation Park inspired by Silicon Valley and Kendall Square in the US, which will enable us to expand cross-disciplinary collaborations across the Greater Bay Area and beyond.

With the right blend

of talent, structure and culture. universities have the power to create lasting impacts that can better humanity. HKUST, together with other leading universities and our industry partners around the world, is committed to driving advancements in science, technology and knowledge transfer to address global challenges and foster a world where societies can thrive sustainably and equitably.

Nancy Ip is president of the Hong Kong University of Science and Technology.



## A valuable vibe

#### Creative energy drives Lund University's success in innovating and working with business, and its horizons are expanding, its v-c tells Ellie Bothwell

Should a university appoint a leader from within its walls or search further afield for someone with an outsider's perspective?

The question has recently returned to the fore following the high-profile appointments to top posts at leading UK and US universities. The University of Oxford, for instance, looked within its own walls for the first time since 1997 when it appointed its latest head, Irene Tracey; by contrast, the University of Cambridge's new vice-chancellor, Deborah Prentice, worked at Princeton University for 34 years.

Erik Renström, who became head of Lund University in Sweden in January 2021, 26 years after first joining the institution as a clinical assistant at the university hospital, falls into the first category of insiders who have recently taken the helm.

But Renström, a professor of experimental endocrinology who took the position following a stint as dean of the Faculty of Medicine from 2018, required some time to warm to the idea. He admits that he was initially against becoming a dean – let alone vice-chancellor – at a university where he had spent two decades as a researcher.

"You have friends with whom you have collaborated over a number of years, and you will have to make people disappointed," he recalls thinking ahead of his first administrative role.

On accepting the position, however, he was pleasantly surprised: "The things I had feared did not materialise. I found that people are...prepared to accept quite harsh messages if they understand why."

When the vice-chancellor's job came up, he was less concerned about being an insider. Timing was a more important factor.

"I felt that I had barely started as dean of medicine, but I decided that if I'm ever going to become the vice-chancellor, now is the time. I don't want to do it in six years or later," he says.

"In my mind, that would be quite late. I'm not sure it's a great idea to be a vice-chancellor when you're 70. I think you should be reasonably close to when you have acted as a researcher yourself, and as a teacher. I find it very important to maintain that identity, and I am one of the academic staff now who has taken on this role...At the same time, you have to prepare yourself for being alone at times."

More than two and a half years into the job, he stands by his decision: "My schedule is punishing. You have to have the stamina."

ike many universities in Sweden, Lund is a hotbed for innovation. Bluetooth, artificial kidneys and oat milk are among the discoveries made by researchers at the institution. Each of these was either created in collaboration with industry or resulted in the foundation of a new company.

But Renström (pictured right) says that what stands out at Lund is the relationship between industry and student life, and the multidisciplinary nature of business partnerships.

"Yes, it's about heat exchange," he says, referencing the university's longstanding partnership with Alfa Laval, which produces specialised products and solutions for heavy industry. "But it's also about having a society, a cultural scene that's inspiring and interesting. The students definitely influence the vibe of the city of Lund immensely, and

People are... prepared to accept quite harsh messages if they understand why



also beyond in the entire region. So we also see the value of collaborating [with industry] in the cultural sector and the creative sector."

Lund has a nonprofit student organisation called the Academic Society, with "a purpose of gathering and

broadening the cultural aspect of the student life". While it is managed entirely by students, with its ongoing activities financed through membership fees, major renovations depend on donations from alumni or businesses, primarily in the local area.

"The society dates back to 1830 and has no real equivalents nationally. Its importance for student life in Lund cannot be overestimated," Renström says.

Another large part of the student experience involves getting a taste of the work culture inside the industry giants headquartered just miles away.

Renström's own first encounter with industry was as a PhD student, when he worked at the pharmaceutical company Novo Nordisk. He admits that he "didn't feel too enthusiastic" because he considered himself an academic at heart. But he says it was a "formative experience" that became useful when he started working in innovation later in his academic career.

"I didn't want to design experiments according to what is required for this to become a successful drug on the market," he recalls. "I wanted to do the things that I felt were interesting. As an academic...you move from one question mark to another. You are sometimes not very interested in having a final result."

But with the benefit of hindsight, Renström now cautions against seeing research done with industry as inferior to blue-sky research. "When we analyse research output during the last decade, we can see that a collaboration with an external partner increases the number of citations...So there's no competition between involvement with external stakeholders and pursuing high-quality academic research," he says.

In Renström's experience, the most challenging aspect of university-industry collaboration is not the researchers – "they have no problems with collaborating with each other" – it's the legal contracts and agreements around aspects such as publication policies.

At Lund, it is "an absolute must" that any industry-collaborated research is integrated into educational programmes as quickly as possible, he says. "We don't want to have an embargo of three or five years for that."

It is also important to think through carefully what topics you can include in collaborative research – and what to leave out, he says.

"You have to identify the borders, which you usually would not pay too much attention to if you were working purely on academic research. Because there, of course, you let everything cross-fertilise with everything else."

Despite the challenges, he says, he has "always been a great champion" for external engagement. "I really love academic research and going deep in your own subject", he says. "I think you can combine both."

Renström says that "almost all of the big companies" in Lund and surrounding the city "come from the university or have collaborated with the university quite intensely for the last couple of hundred years", with examples including Tetra Pak and Gambro, among others.

"That builds on the tradition that we have established a relationship with the society at large," he says. "It's both us – how we cooperate with the industry...and civil society. But also, society at large



expects something useful to emanate from the university."

Industry

But the institution's industry collaborations are set to become increasingly global. Lund's industry partners are particularly interested in benefiting from the university's international networks – given the potential reach of millions of students worldwide.

"This is a new dimension they haven't thought about before," Renström says.

If Ikea is interested in expanding its reach in Australia, for example, Lund can set up a conversation with one of its Australian university collaborators for a potential partnership on a graduate project, he explains. His institution can also act as a go-between with companies, sharing its knowledge of a particular area and explaining the relevant academic strengths, he says.

"The advantages are, among other things, that the companies get a better picture of the whole of the tasks that rest on a university – not least the extensive international collaboration that links universities all over the world, and that we are more than a supplier of labour."

Closer to home, Lund is also looking into how it can be part of a European "innovation valley" – a concept announced in the European Commission's New European Innovation Agenda last year. The agenda suggests bringing together "less and more innovative regions with a view to addressing the most burning challenges facing the EU, namely reducing the reliance on fossil fuels, increasing global food security, mastering the digital transformation (including cybersecurity), improving healthcare and achieving circularity".

Renström says the Skåne region of Sweden – where Lund is situated – is working on an application and plans to "connect partners from other regions internationally as soon as possible". He cites an innovation valley in the Baltic region, "stretching from Sweden down to Hamburg" in Germany, as a possibility, involving higher education institutions, companies and cities.

"We envision ourselves building on the unique selling points that exist in our part of the world," he says. "These include the large facilities for synchrotron and neutron science (pictured above, left), excellence in deep tech and life science, but also the cultural and creative industries. They are all more connected than first meets the eye." There's no competition between involvement with external stakeholders and pursuing highquality academic research

#### NAZARBAYEV UNIVERSITY Shaping the Future





#### LEADING RESEARCH UNIVERSITY IN CENTRAL ASIA

Established in 2010 to prepare future leaders and highly qualified professionals in Kazakhstan and beyond; to spearhead research and innovation.





#### Supporting global higher education leaders to achieve sustainable growth and strategic impact

**THE Consultancy** provides bespoke research and evaluation for universities and governments globally. Combining sector expertise and rigorous data analysis, we support the global higher education community to achieve sustainable growth and strategic impact.

Contact us for further information today at consultancy@timeshighereducation.com



Scan to learn more and to request a free consultation

## Magnetic fields

#### UK universities are overwhelmingly represented at the top of the international outlook pillar. Tiya Thomas-Alexander reports

The UK has strengthened its lead as the world's most international university system, but there are concerns that government policy could threaten its position in coming years.

Analysis of the international outlook pillar in the *Times Higher Education* World University Rankings 2024 shows that UK universities claim 31 (62 per cent) of the top 50 places, nearly double the number last year (16, or 32 per cent). Switzerland and Hong Kong come second, with five universities each in this group.

The international outlook score is based on data from three metrics: proportion of international students, staff and co-authorship. For the first time this year, the population of the country has been taken into account when evaluating these measures to avoid penalising universities in large nations – giving the UK a slight boost.

When looking solely at the ranking for this pillar, the top-performing UK institutions are Brunel University London and Queen's University Belfast, with scores of 98.4 out of 100, putting them in joint fourth place. Imperial College London follows in sixth place globally, with a score of 98.3.

Of the 31 UK institutions that feature in the top 50 for international outlook, eight are located in London.

Trevor Hoey, pro vice-chancellor (international and sustainability) at Brunel, says there is a default "element of location" when it comes to drawing staff from the global market. Similarly, international students



are likely to have more family and friends in or around London, adding to the attractiveness of the city's institutions.

However, Brunel has not been relying solely on location – it has been boosting internationalisation in other ways, such as supporting its global community. It encourages staff "not to leave [relationships] behind" when they move to the UK from other countries, Hoey says. Holding on to their home connections helps with research partnerships and exchanges and results in "a virtuous circle" of internationalisation, he explains.

Different collaborations spring up all the time, but Hoey says it takes time to see which ones really work.

The best initiatives the university has made, he believes, have involved trust-building over a prolonged period, such as its 16-year transnational education partnership with Ahlia University in Bahrain.

He references instances where partnerships have been "cordial" at the vice-chancellor level but did not strike a chord for the academics involved. Hoey believes that collaborations are more likely to succeed if a desire to work together is sown and nurtured at lower levels in the universities involved, before the projects rise up over time to secure the support of the leadership teams.

While data reflect these efforts by UK institutions in recent years, 2023 has seen a tightening of government restrictions on international students. Most recently, they have been banned from bringing dependants to the UK unless they are on postgraduate research courses.

Hoey says these new rules are "really causing difficulties for recruitment". In the face of competition from the US and Australia, he says, the UK is "naive" if it thinks that the students it loses because of such a policy will be replaced. Future vacancies may well be filled, "but not with the same calibre of people", he predicts.

Tatiana Fumasoli, director of UCL's Centre for Higher Education Studies, says the UK's strong international outlook even after Brexit shows that the country's universities have "a brand that continues to work". However, with an international student market that is "always changing", the nation cannot rest on its laurels. "If I were the UK government, I would be worried about high-skilled researchers," she adds.

Data at the continent level show that, across the international outlook pillar, North America has improved the most since last year, with Africa second. At a country level, the highest increase in average international scores is seen in China, the US and Nigeria (excluding nations with fewer than six ranked institutions), in part due to the new population adjustment.

The United Arab Emirates-based University of Sharjah leads the international outlook pillar with a top score of 98.8, while City University of Hong Kong follows closely with 98.7.•

#### **INTERNATIONAL OUTLOOK PILLAR: THE TOP 20**

ʻillar rank	VUR rank	Iniversity	ountry/ egion	'illar core
1	351-400	University of Shariah	United Arab Emirates	98.8
2	82	City University of Hong Kong	Hong Kong	98.7
3	251-300	Università della Svizzera italiana	Switzerland	98.5
=4	351-400	Brunel University London	United Kingdom	98.4
=4	201-250	Queen's University Belfast	United Kingdom	98.4
6	8	Imperial College London	United Kingdom	98.3
7	135	Queen Mary University of London	United Kingdom	98.1
8	22	UCL	United Kingdom	97.9
=9	201-250	Abu Dhabi University	United Arab Emirates	97.8
=9	301-350	Hong Kong Baptist University	Hong Kong	97.8
11	501-600	Alfaisal University	Saudi Arabia	97.7
=12	201-250	University of Aberdeen	United Kingdom	97.5
=12	=38	King's College London	United Kingdom	97.5
=12	1	University of Oxford	United Kingdom	97.5
=15	5	University of Cambridge	United Kingdom	97.4
=15	301-350	University of Essex	United Kingdom	97.4
=15	251-300	Khalifa University	United Arab Emirates	97.4
=15	=138	Maastricht University	Netherlands	97.4
19	501-600	University of Greenwich	United Kingdom	97.2
=20	183	University of Geneva	Switzerland	97.1
=20	71	Institut Polytechnique de Paris	France	97.1



جامعة الإمارات العربية المتحدة United Arab Emirates University



# LEAD THE FUTURE WITH US

"The University of the Future"



() www.uaeu.ac.ae





#### Institutional partnerships are on the rise, but the sector must do even more to join forces to tackle global challenges, writes Linda G. Mills

This summer, as smoke clouds from Canadian wildfires hung over New York City, I could not shake the feeling of how intertwined we all are.

The orange haze covering hundreds of miles across two countries was a vivid reminder that our most pressing problems know no bounds. From climate change to inequality, the future of work to infectious diseases, the challenges we face are global and interconnected. To make a positive impact on communities around the world, institutions must be as far-reaching, not just in orientation but also in infrastructure. Universities need to step up to this role more fully.

Over the past 20 years, NYU has developed an unmatched global presence by creating degree-granting campuses in Abu Dhabi and Shanghai, in addition to our primary New York campus. We have strengthened that presence with a network of 12 urban academic centres for study and research. This structure has helped us break out of institutional and geographical boundaries, work across disciplinary silos and rethink the nature of a 21st-century comprehensive education.

Scholar-to-scholar connections have long been global. What has changed is the emerging interest in institution-to-institution connections. As NYU's new president, I will build on this openness to support NYU colleagues around the world in coming together to tackle today's most vexing questions.

This new receptiveness manifests itself in many forms. From the partnership NYU Shanghai has with East China Normal University to Stanford's research hub with Peking University; from Europe's Erasmus+ programme to NYU's recent partnership with Korea Advanced Institute of Science and Technology (KAIST), which over the past year has brought together more than 100 faculty members from both institutions; from Georgia Tech's collaboration with CNRS in France to Carnegie Mellon's degree programme with ITESM in Mexico what is demonstrable is a changing attitude. As at NYU, a growing number of universities share a belief in global engagement to foster cross-national, multidisciplinary and multi-institutional research.

Among students, the thirst for global engagement is greater than ever before. Last November, the Institute of International Education reported a year-on-year increase of 80 per cent in enrolments of new international students in the US, showing a pandemic rebound. At NYU, 23 per cent more students studied abroad and 32 per cent more faculty members applied for summer fellowships overseas, compared with pre-pandemic levels.

As new models for global engagement emerge, enabling new ideas to pour in from an array of disciplines and nationalities, I think about what Scott E. Page calls "the diversity bonus". In his 2019 book by that name, Page, a University of Michigan social scientist, argues that "progress depends as much on our collective differences as it does on our individual IQ scores" and presents data to suggest that "diverse groups of problem solvers outperform the groups of the best individuals solving complex problems".

As we open a new chapter at NYU, our global identity is woven into the watermark on every page. And yet we recognise that our approach is not complete. Our funding programmes and support infrastructures need to be developed further to connect more people to real-world problems, and to reinforce a variety of opportunities. At a time when critics of globalisation erect obstacles to international collaboration, our collective future depends on our capacity to convene, converse and collaborate across differences. There is no better place to begin than with university communities. The alchemy of this engagement will imagine and create a better world.



Linda G. Mills President, New York University, and the Lisa Ellen Goldberg professor of social work, public policy and law

## International role models wanted

Monterrey Institute of Technology is bringing in foreign scholars to help the institution and its faculty evolve, its president tells Tiya Thomas-Alexander

n 2020, David Garza, president of the Monterrey Institute of Technology, laid out a strategic plan for the university, located in the north-east of Mexico. Written into this was the goal "to attract 100 high-impact professors with international leadership experience" by 2025. Three years later, the institution has achieved more than a quarter of this target, with 27 "faculty of excellence" joining as of July

of excellence" joining as of July. "This is a faculty development programme; it is not just a faculty hiring programme," Garza tells *Times Higher Education* of the initiative, which he hopes will transform not only his institution, but Mexican higher education, placing it among international destinations for scholars.

Monterrey Institute of Technology, known informally as "Tec", has 60,000 students spread across 26 campuses. The new faculty are primarily for the campuses in Monterrey, Mexico City, Guadalajara and Querétaro. The towering private institution also sponsors several high schools, which have a total of 30,000 students, with those taking advanced International Baccalaureate courses eligible to receive Tec credit for them. In 2002, the university created another smaller non-profit university called TecMilenio, where 80 per cent of students study on scholarships (pictured above).

Garza, an alumnus of the institution who worked on faculty for 30 years before becoming rector in 2017, says that Tec was once in an expansion phase – but isn't any longer. Now, having entered the "consolidation" phase, it is focusing on bringing in foreign faculty to improve the quality of education. Internationalisation, in this context, is being used as a tool on its home turf instead of abroad.

He admits that it was not easy to make the call to invest in hiring international scholars, considering the university already employs 2,000 local researchers. To attract "top-notch faculty" from overseas, Tec has to compete with a global standard of living; it has earmarked a budget of \$60 million (£46 million) for this purpose.

"This implies that perhaps it is three or four times [the salaries that] we currently have here. But then our thinking was, well, we need to bring faculty that is three times or four times [the quality] we currently have, as an average," he says.

But despite the bigger pay cheques, Garza is clear on the role of such researchers: "We are not bringing them [in] to be elites."

He emphasises that the idea is to bring in specialists and leaders who can be "role models", inspiring Tec's faculty. Garza (pictured inset) is keen for overseas recruits to bring in new schools of thought and act as "a catalyst for something that is evolving" – the institution, as it changes with the times. The university's strategic plan also states that this talent drive is working to "continue the processes of attracting, developing and strengthening our faculty".

For each academic hired, the university sets different development goals. These can include action-oriented aims, with some

This is a faculty development programme; it is not just a faculty hiring programme



experts hired to work on big projects with industry, while in other instances they may work purely as basic researchers. There is no "onesize-fits-all" target, Garza says, but each new hire is expected to contribute to raising the "qualifications and the experience" of university faculty.

He hopes they will foster a better academic and research environment, which in turn will attract more international faculty and also convince them to stay.

Garza relays conversations with foreign academics and visitors who set foot on the campus. "Unfortunately, sometimes they say: 'I didn't expect to see this in Mexico,'" he says in reference to the facilities on campus. "I say 'unfortunately', because I think that we really have a country with lots of strengths and with lots of opportunities."

Tec, along with other public and private institutions in the country, he says, is "committed to having a better Mexico from the Mexico that we have today".

The pressing need to solve local problems is another driving factor behind bringing in foreign talent. For instance, the country is in critical need of research to prevent obesity as well as monitor it. According to the World Health Organization, obesity-related diseases, including cardiovascular diseases and diabetes, are Mexico's leading causes of death. In 2016, the Mexican government declared obesity an epidemic.

Tec has been deeply involved in tackling public health issues, including through its university-run hospital, which was at the forefront of Mexico's research into the coronavirus during the pandemic. Currently, a researcher from Sweden's Karolinska Institute is at Tec running clinical trials on obesity; it is efforts such as this that benefit from international recruitment, Garza reiterates.

Already, the university has succeeded in drawing overseas faculty into fields such as engineering, nanotechnology, health sciences, business and marketing and architecture. New professors come from a diversity of institutions, with Babson College, the University of California, Irvine and the Hong Kong University of Science and Technology represented. Among the source countries for incoming talent, the US is "dominating", with Latin America in the "minority", Garza notes.

He hopes that bringing in globally renowned faculty will raise the quality of research, boosting his country's reputation as a leader others can turn to in tackling bigpicture issues.

"We also want to be a university that has more international visibility due to the contributions that we make for big, important problems," he says, mentioning one big project under way: the university is creating the largest genetic biobank of the Hispanic population in the world, according to Garza.

The project aims to sequence 100,000 genomes, starting with Mexico. Like biobanks in the US and the UK, it has the potential to become "a platform for research", not just for the university, but also for researchers and pharmaceutical companies across the world, he says.

A recent trip to the World Economic Forum has made Garza think more about what he can do to create links between countries such as Mexico and top research producers in the Global North and elsewhere. At the event, he was the only leader to attend from a Latin American university. Being able to be part of discussions on this scale, he says, gave him different ideas for how to engage with universities around the world.

The answer, he believes, is in "strong alliances, deep alliances" which are lasting.

"It's not going to be a one-year initiative, it is not going to be some faculty initiative, but it is going to be an institutional initiative," he says.

The priority is a current one, but Tec is no newcomer to overseas connections. During the Second World War, in 1943, Massachusetts Institute of Technology graduate Eugenio Garza Sada – no relation to its current head – founded the private institution.

"I think that something that is attracting this faculty is that we are a very innovative university, and we like to engage in very ambitious projects," Garza reflects. Being a private university can sometimes mean that things move quicker too, he says. After all, it was only a few years ago that Tec overhauled its education model, focusing on an "engaging university experience".

Its location has also been helpful. The city of Monterrey was historically an industrial city, abuzz with entrepreneurship. Still, crime had been rampant until recently, ebbing in the last decade when urban regeneration work – largely led by the

university – took place, he says. "Tec District", as the university vicinity is now known, is "10 times the size of the campus". Soon the city will be the destination

for Tesla's largest assembly factory. But Garza already

has his eye on even bigger changes, still far on the

on "Tec 100", the university's vision as it moves towards its centenary. As the university celebrates its 80th birthday, he and his team are shaping a vision for the era ahead.

Perhaps it is unsurprising that Garza appears restless, emphasising the need to steer clear of *complacencia*, Spanish for complacency.

"Something that always bothers me is this: is there something that I am missing? Is there an opportunity that I am not seeing or not catching?"• We also want to be a university that has more international visibility due to the contributions that we make for big, important problems

## Helping you make better, data-informed decisions

THE DataPoints is a cloud-based platform that gives universities unprecedented insight to their performance across a wide range of indicators, and the ability to benchmark against thousands of other institutions around the world.

With competition in the sector ever increasing, having your finger on the pulse of your institution's performance, and understanding where you stand in the global context, has never been more important.



#### Six key features of THE DataPoints

#### Institution finder

This tool enables subscribers to search and filter universities in THE's World University Rankings across a number of attributes to identify peers and potential collaborators.

#### WUR explore

Universities are often subjected to changing conditions that can impact things like funding, recruitment and research activities. Explore allows users to simulate the impact of such changes on their rankings performance for the current

year, providing a hypothetical view of what impact certain changes may have.

Year-on-year analysis Compare your results against previous years' rankings, across ranks, scores and performance metrics.

**Detailed metric** benchmarking Go into fine detail and compare your institution's performance against your selected peers across THE's 18 individual metrics. including access to scores, values and cross-metric comparisons.

Subject level analysis Analyse vour metric-level performance and compare to vour peers across THE's 11 broad subject areas as well as on a more detailed 31 subject level.

Early access to results As part of a DataPoints subscription, your institution will have access to the rankings results one week before they are officially released.



#### Contact us to discuss our data or to learn more: data@timeshighereducation.com

These great features will be available to existing DataPoints customers in time for this year's WUR release.



**Duncan Ross** Chief data officer, *Times Higher Education* 

This year's changes will also be rolled out across our other rankings so that we have a consistent set of measures

## The shape of rankings to come

We are gathering data on interdisciplinary science and online learning, and improving some rankings to fully reflect universities' work, says Duncan Ross

t Times Higher Education, we try to think of our various rankings as part of different groupings (although increasingly some cross boundaries). These reflect different university missions: research, teaching and sustainability.

Rather than trying to blend these rankings into a super-ranking, we think it is better to evaluate these areas independently. A sustainability measure in the research rankings, for example, would be swamped by other data, and would be little better than a token – giving newer universities no opportunities to demonstrate their excellence.

I have already written about the changes we have made to this year's World University Rankings (pages 86-87), and my colleagues have put this into the context of the past 20 years (pages 34-36). Now it is time to look to the future – at least as far as next year.

#### Research rankings

With the World University Rankings now including more than 1,900 institutions, it is undoubtedly still our flagship ranking. The changes we have introduced this year will be carefully evaluated to ensure they have the desired impact.

These changes will also be rolled out across our other related rankings so that we have a consistent set of measures wherever possible.

The nature of research itself is something we are very interested in. Our exploration of the citation measures has deepened our understanding of the complexities involved, especially when it comes to interdisciplinary research. The structures of higher education tend towards the hierarchical, and yet some of the best research is carried out across these boundaries.

Over the course of the year, we have been gathering data from universities on how they support interdisciplinary research – specifically, for the time being, in the area of science. The results are interesting, and highlight some of the challenges faced when trying to ensure this critical research is well supported.

We will be reviewing the data and expect to move – towards publishing a formal Interdisciplinary Science Ranking next year.

#### Sustainability rankings

We won't be changing the questions in the methodology for next year's Impact Rankings, but there are a few other changes we might make.

We want to expand our Impact Rankings advisory board (it currently includes 10 members). Already we hold two separate meetings because the geographical spread of members makes holding a single meeting difficult. As a result, it makes sense to expand membership and have two larger groups.

One of the key decisions we will be discussing with them is how to grow participation in the rankings further, and what that might mean for the overall ranking. Already the Impact Ranking are, by a considerable way, the world's largest rankings focused on sustainability. As we grow them – hopefully – past 2,000 participants, the way we allow universities to demonstrate their fantastic progress becomes more and more important. Should we continue to have a single ranking, or should we



find another way to showcase institutions?

Of course, the Impact Rankings have a critical role to play in helping universities to understand the opportunities they have to deepen their sustainability activities, and in helping governments learn about how their higher education sectors are supporting their actions in addressing the United Nations' Sustainable Development Goals (SDGs). This year, we have been able to use the data to showcase the actions of higher education at the Civil20 India Summit, as well as to numerous governments around the world.

#### **Teaching rankings**

After discussions with our partner Benesse, we have decided to pause the Japan University Rankings for a year. As a result, the next edition will be published in March 2025. There have been significant changes in the rankings landscape in Japan, and we feel that this pause will



allow Japanese universities time to assimilate these changes and further recover from the impacts of the Covid-19 pandemic.

A new initiative is under way at *THE* to explore the growing world of online higher education. This is an area that is both a challenge to traditional modes of teaching, and one that is yet to have a single established way of working.

Although the roots of online education can be traced back at least as far as the 1960s, when The Open University was established in the UK, online learning was given a significant boost during the Covid-19 pandemic when distance learning became the de facto mode of education for many.

There are many potential avenues for our exploration, including microcredentials and alternative providers, but initially we will be looking at institutions providing full-length degree courses.

We expect to start the process of gathering data this year, and will be exploring options with institutions.

#### Other rankings

This year, we launched our first ever Sub-Saharan Africa University Rankings, in partnership with the Mastercard Foundation. We are very excited about this ranking, which blends elements of teaching, research and impact.

At our launch event at Ashesi University in June, the opportunities for higher education across Africa were made very clear, and we look forward to developing the ranking further. The next edition will be launched in December 2024 – the extra time giving an opportunity for greater university participation and for our advisory board to help us shape the metrics.

Our Arab University Rankings are also configured to provide insights specific to that very dynamic region. The third edition, published this autumn, will see the ranking continue to expand, while at the same time tweaks have been made to the methodology to better reflect regional trends. Finally, the World Reputation Rankings in their current form use data from our much-expanded academic reputation survey. It has become well established as a great metric for the overall brand value of universities, focusing on the top 200 university brands in the world.

One of the things that has always interested me is how we could expand this ranking to explore other aspects of reputation and brand. We are currently in the very early stages of this exploration, but hope that any changes will enable the World Reputation Rankings to provide broader insight that will be useful to university leaders and marketing teams.

For all our rankings we maintain the principle that participation should be free for universities, and that it will remain voluntary.

We will continue to invest in data collection and data quality to ensure that the results we provide are as useful and as insightful for the sector as possible.

#### **OUR RANKINGS**

Our research rankings include our:

- World University Rankings
  World University Rankings by subject
- Asia University Rankings
- Latin America University Rankings
- Young University Rankings
- Interdisciplinary Science Ranking (new)

#### Our sustainability rankings include our:

Impact Rankings

Our teaching rankings include our:

- Japan University Rankings
- Online Learning Ranking (new)

We also produce the following rankings that don't fit exactly into any of the above categories:

- Arab University Rankings
- Sub-Saharan Africa University Rankings
- China Subject Ratings
- World Reputation Rankings



## KANGWON NATIONAL UNIVERSITY

## **PRIDE OF KOREA**

Leading the Future in University Education

Innovative education platform Collaborative curriculum Evolving academic ecosystem



**Contact** www.kangwon.ac.kr/english



#### UNIVERSITAT DE BARCELONA

#### LEADING UNIVERSITY IN SPAIN AND AMONG THE TOP 40 EU UNIVERSITIES

#### LEARN MORE AND VISIT US AT UB.EDU



#### BREAKING KNOWLEDGE FRONTIERS TO FOSTER SUSTAINABLE, INCLUSIVE, AND WELL-BEING SOCIETIES SINCE 1450

#### **GLOBALLY COMMITTED...**

17 faculties, 10 affiliated centers, 70 + BA, 165 + MA, 45 + PhD programmes.

70,000 + students, 5,000 + doctoral researchers, 6,000 + professors and researchers, 3,000 + technical support staff.

665,000 + m<sup>2</sup> devoted to producing, managing and transferring high-level scientific knowledge.

Partner at leading European and International Networks.

#### ... TO BUILDING A BETTER FUTURE

190m + € research funds (2021), 7,500 + yearly research publications, 1,000 + active research projects, 25m + € on transfer projects.

100,000 + m<sup>2</sup> devoted to Biomedic Research and Innovation at the Parc Cientific de Barcelona (PCB-UB) with pioneer singular research devices (e.g. 400 MHz Bruker Advance Neo).

5 University Hospitals (e.g. Clínic and Bellvitge Hospitals) and 12 associated Health Centers.