

Resilience and forward-thinking marked the University's teaching and learning in the 2021-22 academic year, when we made progress in advancing and modernising our curriculum while coping efficiently with the ongoing challenges posed by COVID-19. Our guide has been the HKU Undergraduate Teaching and Learning Strategy 2021-28, which lays out a framework for innovating teaching and maximising students' potential.



The 3rd HKU Teaching and Learning Festival 2022 celebrated the achievements of teaching innovation and development that positively impact student learning.

## TEACHING INNOVATION

HKU's teachers have been embracing new technologies to ensure students can continue to learn whatever the circumstances and to explore new ground, both in terms of how content is taught and the content itself. Simulations, virtual reality and 3D cameras are being used in disciplines as diverse as archaeology and nursing. To support teachers, the University runs a biannual Teaching and Learning Festival featuring workshops and sharing sessions and it has opened

the new Learning Lab, a unique hybrid classroom that offers professional development for teachers and a model for bridging the divide between online and in-person students. We have also formalised our university teacher professional learning programme into the HKU Postgraduate Certificate in Academic Practice, a portable qualification for teachers who complete our general training programmes that will be launched in 2023.



Learn more about HKU's new big data-oriented programmes



## PROGRAMME INNOVATION

Digital capabilities have become more important than ever in society. To meet that demand, we launched several new programmes in 2022-23 that emphasise digital literacy and the ability to work with big data and artificial intelligence. These include the Bachelor of Engineering in Data Science and Engineering, Bachelor of Arts in Humanities and Digital Technologies, Bachelor of Science in Bioinformatics, Bachelor of Business Administration in Business Analytics, and Bachelor of Science in Marketing Analytics and Technology. In a similar vein, the double degree Bachelor of Science and Bachelor of Laws prepares students to deal with legal issues related to STEM. Another new programme, Bachelor of Psychology, addresses the growing demand for mental health professionals. Meanwhile, tech components have been applied to the student services provided by the Centre of Development and Resources for Students, which offers online counselling and psychological support to students with needs, as well as a CV-checker and AI-based mock job interviews that give students feedback on their performance.

## STUDENT INNOVATION

Enterprising students have a growing array of opportunities to develop their ideas and get an early start in innovation and entrepreneurship. iDendron (see Technology Transfer and Knowledge Exchange chapter) has offered funding and entrepreneurial training to students for several years, while the Tam Wing Fan Innovation

Wing, which opened in phases in late 2020 and late 2021, supports maker culture through a well-equipped space where students can collaborate, develop their ideas, and receive training from experts and peers. So far more than 2,300 students from all 10 faculties have come through the Innovation Wing.



The Tam Wing Fan Innovation Wing Two was officially opened in December 2021. The Innovation Wing One and Two and the Innovation Academy together form an integrated hub for innovation, exploration, outreach and collaboration.





The CETL Learning Lab was launched in May 2022 to support innovation, including addressing the post-pandemic demand for synchronous hybrid learning.

Learn more about the CETL Learning Lab



# EXPERIMENTS IN LEARNING

A promising new model for hybrid learning has been developed at HKU, while several of our teachers were honoured for bringing innovative approaches into their classrooms.

## MAKING HYBRID LEARNING WORK

One of the biggest challenges teachers have faced during the pandemic is how to make hybrid learning work – those sessions when in-person and online students attend class at the same time. Professor Susan Bridges and her colleagues at the Centre for the Enhancement of Teaching and Learning have examined the problem from all angles to produce a model that is attracting global attention and

is on display at the Learning Lab, a new professional development space where teachers can experiment with the future of learning.

“We were given a brief two years ago to predict what classes would look like when face-to-face learning resumed and to draw out the best lessons from arrangements during COVID-19. Hybrid was the hardest to crack but

we have designed this space ourselves and patented the Hybrid Learning Mobile Desk Console in the HKSAR and Mainland China, and we believe it can achieve our learning goals. This is the most advanced hybrid teaching space on campus,” said Professor Bridges.

The console puts online learners at the centre of group discussions, using hexagonal tables with two back-to-back computer screens at their centre and a 360-degree camera. Online students can see all their in-person groupmates at the same time and vice versa, and both groups can look at the same computer screen at the same time. Their work can also be projected onto a giant digital canvas that wraps around the room, for feedback from teachers and classmates. Online students can also be projected onto the canvas to contribute to whole-class discussion.

The Learning Lab has been presented to educators in Hong Kong, Europe and Australia to much interest. “People have never seen this kind of space before. I believe the future of teaching and learning is hybrid,” Professor Bridges said – particularly in connecting students and teachers in different campuses and countries.

## TEACHING EXCELLENCE HONOURS

HKU teachers have been honoured internationally for their excellence and innovation, winning two Gold awards and one Bronze at the 2021 QS Reimagine Education Awards (the ‘Oscars’ of education) and the C Holmes MacDonald Outstanding Teaching Award from the Institute of Electrical and Electronics Engineers Eta Kappa Nu (IEEE-HKN).



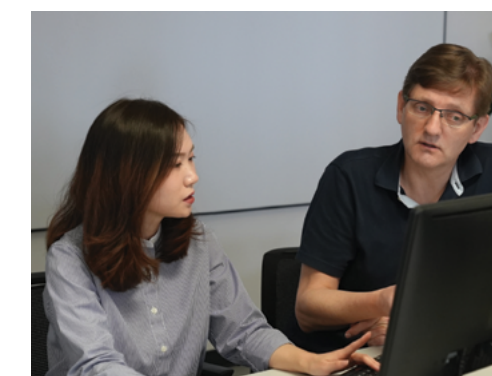
### QS Reimagine Education Gold award

Dr Ng Ming Yen of the Department of Diagnostic Radiology won the Gold award for life sciences for a Massive Open Online Course (MOOC) on cardiac imaging that is the first of its kind to provide a postgraduate certificate in cardiac CT and MRI. The MOOC was developed with input from a large team of international and Hong Kong experts and HKU’s Technology-Enriched Learning Initiative.



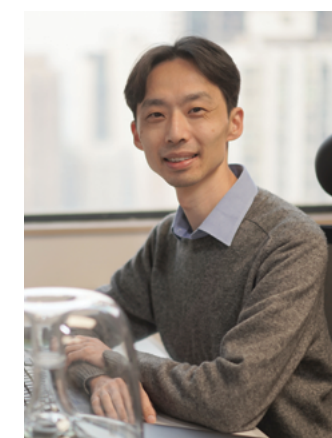
### QS Reimagine Education Gold award

Dr George Lim Tipoe and Dr Fraide A Ganotice Jr of the Li Ka Shing Faculty of Medicine won a Gold award in hybrid learning for their teamwork on interprofessional education and collaborative practice. Students from 12 health-related programmes in six faculties come together to learn about, from and with one another, and deepen their understanding of each other’s disciplines, with their discussions facilitated by Open edX and learning analytics. More than 40 teachers are involved in the project.



### QS Reimagine Education Bronze award

The Bronze award went to Mr Mathew Pryor and Ms Lynn Lin Hanyuning in the Faculty of Architecture in the category of ICT tools in teaching, learning and support for their Digital Exhibition Space, which makes creative use of 3D virtual technologies for students to learn and display their works.



### IEEE-HKN award

The IEEE-HKN award went to Dr Hayden So Kwok Hay in the Faculty of Engineering for his excellence in training and motivating future engineers. Dr So involves students in hands-on projects from the outset then guides them back to the underlying theories. His teaching has inspired several students to launch their own start-ups. The IEEE’s honour society, Eta Kappa Nu, honours only one professor globally each year. Dr So is the first scholar outside the US to receive the award.