

NTU undergrads must take new interdisciplinary core curriculum from next year



The core curriculum courses will take up one-fifth of their academic workload. PHOTO: ST FILE

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SINGAPORE - From August next year, undergraduates entering Nanyang Technological University (NTU) will have to take up a common core curriculum that will enable them to make connections across disciplines and develop interdisciplinary knowledge and skills.

The core curriculum courses will take up one-fifth of their academic workload, and are aimed at developing a range of abilities, including communication skills, digital literacy and enterprise and innovation.

The compulsory courses are designed around society's greatest challenges and issues such as climate change and global health.

NTU president Subra Suresh said NTU has always emphasised the importance of a holistic and broad education.

Besides the double degrees and double major degrees, there is also the General Educational Requirement courses, where students select from a basket of elective courses, including those focused on science, technology and society.

The new core curriculum will replace these general education courses.

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He said NTU now wants to go further through the common core curriculum, to enable students to integrate knowledge from different disciplines.

He stressed that the challenges the world is now dealing with, and will increasingly be facing, are inter-related and can no longer be successfully tackled by single-domain expertise.

"Addressing these challenges will require an understanding of the bigger picture and of the manner in which people of different disciplines need to be able to work together," he said.

"Those who can thrive in this changing global environment will have a broad interest and knowledge outside of their specific disciplines.

"For example, they should be able to appreciate the ethical dimensions of writing code that collects people's personal data without their knowledge, or the importance of intuitive and aesthetic design in the engineering of a new healthcare device."

To develop their ability to work in multidisciplinary teams, students from different disciplines will learn together in the same classroom. They will be expected to apply the knowledge from their respective disciplines to collaborate on group projects.

Faculty from different disciplines will come together to design and teach the courses to offer a more in-depth and interdisciplinary exploration of knowledge.

For example, a course on sustainability may draw on faculty from disciplines as varied as climate science, environmental engineering, business, and environmental history.

Professor Ling San, NTU deputy president and provost, said that the connection between employability and interdisciplinary skills is set to become more prominent in the aftermath of Covid.

He added: "Graduates with transferable skills that are portable across any industry or job will be able to transit through different jobs and careers in a rapidly changing and disruptive work landscape."

He said the core curriculum will be piloted in a few schools this year, before being adopted university-wide in August 2021.

It will apply to all undergraduates except those taking up medical degree, which has a different educational and professional framework.

The university said the new core curriculum is in line with the NTU smart campus vision, which seeks to prepare students for a new world that is being shaped by advanced digital technologies.

Professor Suresh, who launched the plan in early 2018 when he took over as president, said then that the vision seeks to nurture and transform the NTU campus as a place for the discovery, development and deployment as well as a living testbed for technologies that enhance the human experience and benefit society.

In keeping with that vision, the university had in recent years made major revisions to its undergraduate offerings. It includes a new interdisciplinary undergraduate programme in data science and artificial intelligence, which was recently named by Forbes as one of the world's 10 best AI and data science undergraduate courses for 2021.

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The university also set up the NTU Institute of Science and Technology for Humanity, an interdisciplinary centre that seeks to make sense of how technological advances impact societies, cultures and human behaviour.

Source: <https://www.straitstimes.com/singapore/education/ntu-students-to-take-up-new-interdisciplinary-core-curriculum-from-next-year>