

University's interdisciplinary programmes equip students with...

Adaptable skills to be future-able

Q&A



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— Professor Ling San, deputy president and provost at Nanyang Technological University

Q My son wants to study a specialised programme, but I worry that it's too niche. How can universities prepare students for the wider job market?

In today's rapidly evolving job landscape, graduates need to have diverse, flexible skill sets, and be able to effectively apply them, says Professor Ling San, deputy president and provost at Nanyang Technological University (NTU).

A report by the World Economic Forum in May 2023 found that companies are increasingly prioritising cognitive and soft skills.

Analytical thinking and creative thinking were the top skills of growing importance for workers in the next five years, ahead of digital literacy and technologies such as artificial intelligence (AI) and big data.

To provide students with transferable skills and knowledge useful to all industries, NTU launched seven courses under the Interdisciplinary Collaborative Core (ICC) curriculum in 2021, Prof Ling says.

The courses are mandatory for all undergraduates at the university, equipping them with:

- Key transferable skills such as communication and innovation.
- Knowledge of global trends and challenges, including in areas of sustainability and digitalisation.

Even within specialised degrees, interdisciplinary knowledge remains important. Prof Ling explains: "While a specialised degree can open the door to a graduate's dream job, interdisciplinary skills and knowledge can broaden their horizons and enable them to excel beyond their field."

NTU is launching five new interdisciplinary undergraduate programmes this year. "These new programmes straddle multiple disciplines in traditional and emerging fields, giving students the chance to seize opportunities in a range of existing and upcoming industries."

One example is the Bachelor of Applied Computing in Finance offered jointly by Nanyang Business School and NTU's newest academic college, the College of Computing and Data Science. The new degree programme aims to equip students with deep domain knowledge in finance and strong technological and analytical skill sets.

Meanwhile, students in the new Philosophy, Politics, and Economics (PPE) programme – a four-year honours degree – will learn to integrate multiple disciplinary approaches in the study of society, politics, the economy, and ethics.

They can choose to specialise in two or three disciplines. During their fourth year, students have to complete an interdisciplinary final-year project under the guidance of co-supervisors from different departments.

The curriculum for NTU's Bachelor of Chinese Medicine has also been refreshed in line with Singapore's evolving healthcare needs, to focus on clinical cases, the ageing population and preventive care.

The bilingual four-year degree programme is accredited by the Ministry of Health's Traditional Chinese Medicine Practitioners Board. It will feature two new learning methods:

- Technology-enabled learning using virtual and augmented reality.
- Team-based learning where students acquire knowledge on topics through peer interactions.

Q What do job prospects look like for university graduates and how can my child improve his employability?

The job market is expected to remain highly competitive, with rapid technological advancements such as AI poised to transform entire industries, says Prof Ling.

In an advanced economy like Singapore, AI will affect about 60 per cent of jobs, replacing some and complementing others, according to a report published by the International Monetary Fund in January.

But at the same time, "new jobs are being created in emerging industries, including AI, sustainability and blockchain", Prof Ling adds.

"NTU's undergraduate programmes prepare students for employment opportunities in both existing and emerging fields."

For example, the new Accountancy for Future Leaders – Bachelor of Accountancy (Sustainability Management and Analytics) degree, offered by Nanyang Business School, weaves together two key emerging areas in the future economy – sustainability management and analytics.

The four-year degree programme provides students with an accelerated pathway to attaining chartered accountant status with exemptions for the Singapore Chartered Accountant Qualification.

The programme also offers students a minimum 30-week accountancy-related internship at training organisations accredited by the Accounting and Corporate Regulatory Authority. The internship contributes to the mandatory three-year practical experience required for qualification as a chartered accountant.

Meanwhile, NTU's newly launched Turing AI Scholars Programme allows students in the Computer Science, Data Science, AI, or AI and Society courses to spend a year overseas studying and working at select institutions in academia and industry.

Scholars in the programme can also look forward to one-on-one mentoring from AI specialists, and conducting research under the guidance of distinguished AI professors.



PHOTOS: GETTY IMAGES, NTU

Q My daughter is keen to work abroad in the future. How can her university experience help her secure a job opportunity overseas?

It would be useful for her to gain overseas experience during her university years through overseas work attachments, study missions or exchange programmes, Prof Ling advises.

This can provide her with "an expansive international outlook that prepares her for global citizenship".

At NTU, undergraduates can pursue overseas programmes and activities in over 60 countries. These include overseas internships and entrepreneurship initiatives to help them widen their perspective of the working world

and enhance their career prospects.

Such overseas experiences also enable students to build cultural empathy, understand global issues, manage cultural differences and acquire cultural intelligence, Prof Ling adds.

Some courses offered by NTU also have overseas components built into the curriculum.

For example, students in the new Accountancy for Future Leaders – Bachelor of Accountancy (Sustainability Management and Analytics) programme can go on an overseas study mission to investigate sustainability-related issues. Undergraduates in the PPE programme can translate theory into practice through a compulsory internship overseas or locally.