

## **NEWS RELEASE**

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### **NTU Singapore offers new SkillsFuture Work-Study Degree Programme in Computing**

*Co-developed with industry leaders, programme also confers Professional Certificates*

From August 2024, working professionals looking to pivot to the information and communication technology (ICT) sector or deepen their skills in this area can enrol in a new **part-time SkillsFuture Work-Study Degree Programme in Computing** at **Nanyang Technological University, Singapore (NTU Singapore)**.

This Work-Study Degree Programme is the first in Singapore to be offered on a part-time basis. NTU Singapore's School of Computer Science and Engineering co-developed the new programme with industry leaders in the ICT sector. **Accenture**, Singtel subsidiary **NCS** and **ST Engineering** are the first industry partners to come on board to help design and develop the programme.

It is also the first such SkillsFuture Work-Study Degree Programme in Singapore to have a 'stackable' design, which allows students to study at their own pace with minimal disruption to their work commitments. Students are required to complete modules under all three 'stacks' – the Foundation, the Specialist, and the Industry Immersion – to graduate with a full **Bachelor of Technology in Computing**.

Along the way, students will be awarded **Professional Certificates** that recognise their newly acquired competencies upon completing each of the first two stacks. Students can use these certificates to advance their career or to pivot into a more relevant job role while completing the programme.

The partnership between NTU, Accenture, NCS, and ST Engineering was inked today at an event on Internet of Things (IoT) security held at NTU.

**Dr Janil Puthuchery, Senior Minister of State, Ministry of Communications and Information and Ministry of Health**, witnessed the signing ceremony as the Guest-of-Honour at the 'IoT Day 2023' security sharing event, co-organised by the Association of Information Security Professionals (AiSP) and the National Integrated Centre for Evaluation.

**NTU Deputy President and Provost Prof Ling San** said: “The new part-time Work-Study Degree Programme in Computing leverages NTU’s strength in computer science and the industrial expertise of Accenture, NCS, and ST Engineering. The programme comes amid the growth of the information and communications technology sector and a strong demand for skilled professionals in areas such as software engineering, artificial intelligence, and cyber security. Students enrolled in this programme will be able to take advantage of the career opportunities in this sector.”

The launch of this programme is in line with the education pillar of the **NTU2025** five-year strategic plan to equip NTU students with the skills and knowledge necessary to thrive in rapidly changing work and living environments, and to be a leading provider of continuing education.

### **‘Stackable’ degree programme designed for working professionals**

To ensure that the SkillsFuture Work-Study Degree Programme is highly industry relevant, NTU’s School of Computer Science and Engineering works closely with industry partners to design and develop the curriculum.

This means students get to solve real-world challenges through capstone projects or glean the inner workings of the ICT sector through collaboration with practitioners from these companies.

The part-time programme is made up of three ‘stacks’ of modules, which students have to complete to graduate with a **Bachelor of Technology in Computing**. Students are also awarded a **Professional Certificate** at the end of each of the first two stacks to recognise their newly acquired competencies.

This programme utilises the flipped classroom pedagogy where course materials are specifically designed to allow students to view videos and review self-assessment concept questions at their own pace.

They can engage in peer and community learning by posting questions on class forums and through regular discussion sessions with the instructors. This teaching and learning approach allows working adults pursuing further education to better balance their time between their work commitments, study and personal life.

Students start off with the **Foundation stack**, which consists of core modules relating to computing design, programming and software development, operating systems, and databases. Upon completion, they will receive a Professional Certificate in Full-Stack Development, which recognises their ability to build a website or application from start to finish and quickly identify and fix any problems that may arise.

Students can then move on to the **Specialist stack**, which allows students to decide on their electives based on their chosen specialisation of cyber security, artificial intelligence engineering, or software engineering. Upon completion, students will receive a Professional Certificate in their chosen area of specialisation.

These Professional Certificates will help students to pivot into a job role related to their chosen specialisation.

The **Industry Immersion stack** is a significant part of the programme where students are required to assume a job role within their specialisation. During this time, NTU will work with the students' employers to continue building up the students' work competencies and co-assess their performance.

As part of this final stack, students will also have to complete an industry capstone project. Upon completion of this third and final stack, students will graduate with a Bachelor of Technology in Computing degree, allowing them to readily take on the job role.

### **Bridging modules to strengthen foundation in computing**

To enrol in the SkillsFuture Work-Study Degree Programme in Computing, applicants must be at least 21 years old at time of application, hold an 'A' Level certificate or a polytechnic, International Baccalaureate or NUS High School diploma, and have at least two years of full-time working experience<sup>1</sup>.

Applicants who are sponsored by their company or currently working in a role related to computing may be exempted from the age and work experience requirements.

Applicants who do not have the requisite academic qualifications will be considered under NTU's aptitude-based admissions scheme.

In order to help potential applicants succeed in the programme, NTU has introduced five computing-related bridging modules which they are expected to complete in order to qualify for matriculation into the programme.

For more information, interested applicants can visit:

<https://www.ntu.edu.sg/scse/admissions/programmes/undergraduate-programmes/detail/bachelor-of-technology-in-computing-skillsfuture-work-study-degree>

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<sup>1</sup> Includes Singaporeans and PRs who are fully discharged from National Service before the school term begins.

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***About Nanyang Technological University, Singapore***

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in the Engineering, Business, Science, Medicine, Humanities, Arts, & Social Sciences, and Graduate colleges.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Earth Observatory of Singapore, Nanyang Environment & Water Research Institute and Energy Research Institute @ NTU (ERI@N).

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

Ranked amongst the world's top universities, the University's main campus is also frequently listed among the world's most beautiful. Known for its sustainability, NTU has achieved 100% Green Mark Platinum certification for all its eligible building projects. Apart from its main campus, NTU also has a medical campus in Novena, Singapore's healthcare district.

For more information, visit [www.ntu.edu.sg](http://www.ntu.edu.sg)