



JOINT NEWS RELEASE

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NTU Singapore and Mastercard launch Masters programme to boost cyber talent

NTU Singapore and **Mastercard** have launched a new FlexiMasters programme, the **NTU-Mastercard FlexiMasters in Cybersecurity & Digital Trust**, to strengthen expertise in combating the growing threat of cybercrime. This marks the first milestone of the Mastercard-NTU Joint Lab, an industry-university partnership announced in December last year, aimed at strengthening and growing the cybersecurity ecosystem in the Asia Pacific region.

Cybersecurity is a rising challenge in the Asia Pacific region. There has been a 16% YoY increase in cyber-attacks in the last year¹. Cyber threat intelligence has been marked as one of the four key skills gaps by the Cyber Security Agency of Singapore². At the same time, digital trust has been identified by Singapore's Infocomm Media Development Authority as one of the key capabilities to develop the country's digital economy.

The FlexiMasters programme is tailored specifically for mid-career professionals, allowing them to pursue their educational goals on a part-time basis and tailor their studies around existing work or family commitments. It is the first part-time FlexiMasters programme in cybersecurity within NTU's portfolio. More notably, the programme is open to professionals from all backgrounds wanting to make an entry into the field of cybersecurity. This will further help grow the pool of cybersecurity talent in the market by offering new opportunities to mid-career professionals who are looking to switch careers.

This programme is part of Mastercard's efforts to support the region's cybersecurity efforts. In addition to the **Mastercard-NTU Joint Lab** initiative, Mastercard also announced last December its objective to establish its first Cybersecurity Center of Excellence for the Asia Pacific region, based in Singapore.

¹ Global cyber-attacks continue to rise, Check Point (2023).

² CSA and Dragos, Inc. Sign Memorandum of Understanding to Strengthen Singapore's Capabilities in Operational Technology Cybersecurity, CSA Singapore (2022).

Mastercard's leading role in safeguarding global networks means it is uniquely positioned to offer insights into real-world cyber threats. In the last three years, Mastercard prevented over US\$35 billion in potential losses globally from fraud through its AI-powered cybersecurity solutions.

This will be the first time Mastercard is involved in the development and co-delivery of a Masters level programme. Its expertise provides a solid foundation for shaping the practical applications and requirements of the programme, which have been seamlessly integrated into the curriculum. By leveraging Mastercard's global knowledge and insights and offering comprehensive modules developed by Mastercard, the programme ensures that participants are immersed in real-world applications and highly trained to contribute to the cybersecurity sector.

The modules within the curriculum will be delivered by experienced NTU faculty members, in conjunction with Mastercard's global in-house experts. Mastercard experts will take the lead in conducting nine modules, with a teaching commitment of ten to 13 hours per module during the inaugural run of the programme, while simultaneously training NTU's faculty to enable the university to independently carry out the programme in subsequent iterations.

Senior Minister of State Tan Kiat How, Ministry of Communications and Information who was the Guest of Honour at the launch event of the FlexiMasters programme, said, "Securing Singapore's digital ecosystem is crucial to our security and economy. At the same time, the cybersecurity sector provides exciting career opportunities for Singaporeans. Therefore, I am heartened to see private sector firms working closely with our Institutes of Higher Learning to equip our professionals with industry relevant skills, especially in advanced areas of Cyber Threat Intelligence and Digital Trust. I look forward to more of such industry-academia collaborations to open up more pathways for Singaporeans interested in a career in cybersecurity."

NTU's collaboration with Mastercard to develop the new FlexiMasters programme in Cybersecurity & Digital Trust is the latest addition to the University's suite of FlexiMasters offerings, which ranges from business administration to healthcare management and data analytics to sustainable engineering.

Professor Lam Khin Yong, Vice President (Industry) of NTU Singapore, said, "The NTU-Mastercard FlexiMasters in Cybersecurity & Digital Trust represents a vital step towards fortifying the cyber landscape in the Asia Pacific region with industry involvement. This partnership addresses the critical skills gap and talent shortage in Singapore and in the region. As we launch this pioneering programme, we affirm our commitment to empower mid-career professionals, providing them with the knowledge and skills to excel in the ever-evolving field of cybersecurity. Together, we will help shape the future of digital trust and nurturing the next generation of cyber talent. We are pleased to launch this together with Mastercard, and we look forward to involving

industry more in such initiatives as it brings with it a wealth of experience and domain knowledge that they have from being on the ground. This collaborative effort signifies a significant stride toward a more secure and resilient digital future.”

The new initiative is also in line with the University’s **NTU 2025 strategic plan**, which aims to harness the science, art, and technology of learning to address education, a key pillar of the plan, which strives to promote lifelong learning.

Ari Sarker, President, Asia Pacific at Mastercard, said: “We remain steadfast in our commitment to cultivating the skills and expertise necessary to navigate the evolving landscape of digital threats. By empowering individuals and fortifying their knowledge, we not only contribute to the collective resilience against cyber threats but also elevate Singapore’s position on the global stage.”

Ajay Bhalla, President, Cyber and Intelligence at Mastercard, said: “Our ambition to continuously innovate to safeguard trust in our increasingly connected world extends beyond technological advancements to the heart of cybersecurity—nurturing the next generation of professionals. Through this world-leading Masters programme we will enrich best-in-class talent to help deliver a safe and trusted digital ecosystem for the benefit of everyone’s future.”

For more information about the programme as well as enrolment details, please click [here](#).

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Notes to Editor:

The NTU-Mastercard FlexiMasters in Cybersecurity & Digital Trust programme is open to professionals from all backgrounds wanting to make an entry into the field of cybersecurity. No relevant prior working experience is needed, and it is available on both a full time and part time basis. Enrolled participants can choose to complete the course at their own pace, as long as they complete it within five years.

The modules within the curriculum will be delivered by experienced NTU faculty members, in conjunction with Mastercard’s global in-house experts from diverse functions spanning Cyber & Intelligence, AI Garage, Corporate Security, and Law & Franchise Integrity during the inaugural run of the programme.

Mastercard experts will take the lead in conducting nine out of the 15 modules, such as ‘Cyber Fraud Loss Cycle’, ‘Enterprise Cyber Risk Management’, and ‘Intelligence Life Cycle’, in the first intake, while simultaneously training NTU’s faculty to enable the university to independently carry out the programme in subsequent iterations.

The inaugural intake will commence in the first quarter of 2024, with 60 spots available.

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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.

Mastercard-NTU Joint Lab

The Mastercard-NTU Joint Lab sets out to tap into Mastercard's cybersecurity expertise alongside NTU's education infrastructure to train and reskill cybersecurity talent in the region, developing a talent pipeline and industry expertise to build cybersecurity ecosystem capability and create job opportunities in the fast-growing sector. Mastercard and NTU will also collaborate to identify projects for scientific research and development around cybersecurity and digital trust. Additionally, the Mastercard-NTU Joint Lab adds to the national Research, Innovation and Enterprise (RIE) efforts, which lay the groundwork for Singapore's science and technology efforts every five years. This partnership is part of Mastercard's broader objective of establishing its first Cybersecurity Centre of Excellence (COE) for the Asia Pacific region, based in Singapore.

About Mastercard

Mastercard is a global technology company in the payments industry. Its mission is to connect and power an inclusive, digital economy that benefits everyone, everywhere by making transactions safe, simple, smart and accessible. Using secure data and networks, partnerships and passion, Mastercard's innovations and solutions help individuals, financial institutions, governments and businesses realize their greatest potential. With connections across more than 210 countries and territories, it is building a sustainable world that unlocks priceless possibilities for all.

Appendix

Specialisation Areas and Major Prescribed Electives (MPE) Courses

Financial Analytics and WealthTech	Crypto Asset and Blockchain
<p><u>Basket 1 Courses</u> *Data Visualisation Machine Learning Artificial Intelligence Data Analytics and Mining Natural Language Processing Neural Networks and Deep Learning</p> <p><u>Basket 2 Courses</u> *Financial and Risk Analytics II *Wealth Management Financial Compliance Relationship Management Equity Investing with Big Data Sustainable Finance</p>	<p><u>Basket 1 Courses</u> *Blockchain Technology *Distributed Systems Security Management Applied Cryptography Network Security</p> <p><u>Basket 2 Courses</u> *Alternative Investments Financial risk management Financing Entrepreneurial Ventures Portfolio Management Operational Risk Management Derivative Securities and Hedging Strategies</p>
Digital Banking and Security	
<p><u>Basket 1 Courses</u> *Cyber Threat Intelligence Applied Cryptography Security Management Artificial Intelligence Network Security</p> <p><u>Basket 2 Courses</u> *Financial Compliance Financial risk management Sustainable Finance Operational Risk Management</p>	