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**Headline: SMU launches first SkillsFuture Work-Study degree programme in software engineering**

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Come August, Singapore Management University (SMU) students will embark on the university's first work-study degree programme in software engineering.

The four-year undergraduate programme is aimed at meeting the demand for tech talent as Singapore grows as a regional technology hub, the university said in a statement on Tuesday (March 1).

Applications close on March 19 at 11.59pm and 45 students will be selected for the first intake.

The full-time programme will award students a bachelor of science (software engineering) SkillsFuture Work-Study degree and features a rigorous 52-week apprenticeship.

The curriculum was drawn up after extensive consultation with practising software engineers in Singapore and will be updated regularly to keep pace with market trends, said SMU.

Last month, SMU formalised its collaboration with the programme's first partner - the Government Technology Agency (GovTech).

Said Mr D. N. Prasad, senior director of strategy, people and organisation at GovTech: "This presents a rare opportunity for the students to gain in-depth and first-hand experience through working on challenging and impactful government digitalisation projects.

"GovTech is a strong advocate in the development of young tech talent, and recruits over 200 interns each year."

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The programme will be co-developed and co-taught by SMU's School of Computing and Information Systems and practising software engineers from anchor partners.

Partner companies will also be invited to nominate senior staff to teach selected courses as adjunct faculty.

After completing a suite of 12 compulsory courses organised in three clusters - computing foundation, software development and solution management - students will undergo a one-year apprenticeship.

The apprenticeship aims to meet demand from prospective students looking for an applied IT degree with a significantly longer apprenticeship period than what a typical internship offers, SMU said.

Working in development teams, the students will develop software solutions under the mentorship of software engineers during the apprenticeship.

At any given time, a student is either serving apprenticeship full-time or studying full-time, SMU noted.

The university added that core courses can be "slightly tailored to meet partner company's needs".

For instance, if a partner company is a financial institution, in-course projects can have banking scenarios in order to familiarise students with domain knowledge.

At the end of the programme, graduates can expect to be equipped with full-stack development skills and software engineering principles for the design, development, testing and maintenance of software systems.

They will also be trained in cyber security, clean coding, IT development and operations, and modern agile software development methodologies, and can expect to fill roles such as software analysts and programmers.

"In addition to GovTech, SCIS is looking to collaborate with other industry partners as well," SMU said.

Co-founder and technology president of cyber security firm Acronis Stas Protassov told The Straits Times that there is a global shortage of talent in the cyber security industry, which is "fairly young".

During a summit organised for the company's partners last month, a majority expressed their concerns with the insufficient number of fresh graduates in Singapore and how their learning background did not match modern requirements, noted Dr Protassov.

Welcoming SMU's degree, he said: "One of the reasons for the skills mismatch is the misalignment with the modern practices employed by tech companies in Singapore, lack of use of the new technologies and insufficient understanding of foundational subjects, like mathematical statistics.

"Any opportunity to get hands-on industry experience is extremely valuable for prospective specialists. Especially when it allows them to stay within a structure longer – to learn the ropes, enhance their skills and get more applicable knowledge from the apprenticeship."

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Mr Louis Teoh, director of customer advisory at American analytics and software solutions firm SAS Institute, observed that industries are presently reaping the dividends of a workforce knowledgeable in artificial intelligence and operationalisation of analytics.

But with such skills approaching a state of commodity across the region, a course with industry best practices and design principles will give students an edge, he added.