



Empowering educators: The impact of Microsoft Learn for Educators

Nanyang Polytechnic



Nanyang Polytechnic uses MSLE to help launch new AI and Data Engineering degree program

The [Microsoft Learn for Educators](#) (MSLE) program, which provides higher education institutions and educators with a suite of comprehensive tools and resources to augment students' existing degree paths, can be leveraged in many ways. In this blog, we'll look at how Nanyang Polytechnic in Singapore integrated MSLE into a new degree program designed to better equip students for future career opportunities.

Nanyang Polytechnic (NYP) was established as an institution of higher learning in Singapore in 1992. The organization offers 40 full-time diploma courses, common entry programs and continuing education and training options.

A few years ago, NYP launched a new professional competency model. The new model fundamentally reimagined the institution's approach to education, moving away from traditional subject-based learning to an approach that more closely mirrors the real world. The goal is to better equip students with the practical skills they'll need in their future careers.

"We want to ensure that our graduates can conduct the work-related tasks required of them when they join the workforce," says Sophia Wei, manager of the Center for Applied Artificial Intelligence (AI) at NYP. "We want our curriculum to be industry relevant."

As it shifted to the new professional competency model, NYP launched a new diploma program in AI and Data Engineering in 2022. The three-year program aims to develop students' competencies in applying AI and data engineering technologies and tools to help companies analyze enormous amounts of data.

To enable competency-based learning for the new diploma program, NYP needed access to industry technology tools and curriculum. That's where Microsoft Learn for Educators came in. "There are two things we look at for competency-based learning: authenticity and industry relevance," Wei says. "It's all about solving actual industry problems through our project-based learning using industry-standard tools."

Wei infused MSLE content across different learning units to enable students to build AI and data engineering competencies. Some learning units include MSLE lectures and labs, while others enable learners to synthesize skills and knowledge with visual analytics projects using Power BI. Once students complete the course materials, they take the examination to earn a Microsoft Certified: Azure AI Fundamentals Certification. "Infusing the industry Certification is one of the unique features of this program," says Wei. "By integrating the content itself, students don't need to spend extra effort to prepare for the Certification exam, but instead learn during the lesson time. The Certification exam becomes part of their final assessment."

So far, Wei says more than 95 percent of the students in the program have obtained a Certification.

Applying new skills in the real world

Once students complete the AI and Data Engineering course materials and Exam AI-900: Azure AI Fundamentals, they are required to put their new skills to use on a real-life project through a Work-Integrated-Unit (WIU). For example, NYP student Lim Shae Ting recently completed a project at a home for the elderly, where she and other students used technology to help improve the daily lives of dementia patients by facilitating communication between patients and staff using a graphic user interface.

“Singapore has four official languages: English, Malay, Mandarin, and Tamil. We also have a lot of people who speak Cantonese,” says Lim. “Many elderly residents speak a dialect, and the nurses or staff who work with them may not understand it. We used the skills we learned in the AI and Engineering program to create a touch screen patients can use like soundboard. We then used technology to perform basic translations.”

Wei says having students apply the skills and competencies they’ve learned to handle real-world problems is great for the students as well as the companies they work with. “Learners become more excited when they are solving real-life problems,” says Wei. “At the same time, we’ve heard from several companies that say they were impressed with our students’ ability and aptitude and want to extend the internship duration. That’s strong validation of the relevance and practicality of the curriculum, as well as the student’s readiness to contribute effectively to the workplace.”

Learning relevant and practical skills

Wei says she likes that the MSLE curriculum is straightforward and was easy to integrate into NYP’s curriculum. “MSLE gives educators and learners access to teaching and learning resources in the classroom, virtual lab environments for students, professional development and professional Certification resources for our learners. It helps educators connect the dots, which allows us to provide an authentic and meaningful learning journey for our students,” she says.

NYP’s initial AI and Data Engineering cohort will graduate in 2025, so it will be a while before Wei and others can see how the new program translates to employment opportunities. But Lim says she is positive having a Certification will help her once she enters the job market. “A lot of us are very confident that we will be prepared to face whatever the workplace requires us to do,” she says.

Wei says NYP students are excited about having the chance to prepare for and take Microsoft Certification exams and address real industry problems utilizing Microsoft Azure tool sets and cloud services. “This integration will undoubtedly equip students with relevant and practical skills, making them more competitive and job-ready after graduation,” she says. “It’s a forward-thinking approach to preparing students for the demands of the ever-evolving field of AI and data engineering.”

Additional resources:

[Microsoft Learn for Educators](#)