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SIT's unique curriculum incorporates industry experience, helping Mr Ong Shi Ming to hit the ground running upon graduation

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AT THE Singapore Institute of Technology (SIT), Mr Ong Shi Ming gets an education that is both practice-oriented and industry ready.

The third-year undergraduate is pursuing a Bachelor of Engineering with Honours in Sustainable Infrastructure Engineering (Land).

A feature of SIT's degree programmes is the Integrated Work Study Programme (IWSP) that enables students to undertake work to gain industry experience and specialist skills through the integration of theory and practice.

Mr Ong says: "SIT's learning environment is primarily project-based, which means we are required to work with different people on multiple projects.

"Learning how to work effectively and cohesively in groups is necessary for a successful collaboration, as is the management of group dynamics."

This way, SIT students learn important soft skills, in addition to subject knowledge and industry know-how.

Currently on a year-long work attachment at SBS Transit as part of the IWSP, the experience is an eye-opener for him as he has gained insights into rail transport operations.

Building a solid foundation

As an engineer-in-training, Mr Ong is motivated by the scope of his chosen profession.

He says: "I believe that engineers hold the key to solving some of the world's most pressing social and technological issues.

"New challenges constantly emerge in the field of engineering and there is no ultimate accomplishment since there is constant improvement.

"Engineers will always be a cornerstone of any modern society."

The programme will help Mr Ong to hit the ground running when he graduates next year.

"It is a multidisciplinary degree programme that encompasses several fundamental engineering disciplines," he explains.

Gaining knowledge

Students in the programme can take modules such as Total Preventive Maintenance and focus on Railway Engineering, which is not offered by other local undergraduate programmes.

"A highlight of the unique curriculum is that students get to attain professional Non-Destructive Testing (NDT) certifications for inspection methods, which is highly sought after in the industry," says Mr Ong.

First-year students can also participate in the Regional Immersion in Sustainable Engineering (RISE) programme, visit key infrastructure facilities and projects in the region, and network with design and construction crews.

He has had many experiences that required him to synthesise knowledge from various areas of learning and critically apply it to different situations.

He has also acquired key fundamental knowledge in areas such as solid mechanics, engineering materials selection and fluid machineries.

A student's life

Mr Ong is enjoying university life at SIT.

"Studying at a degree level carries much greater personal responsibility. Support is always available but you have to take your own initiative in seeking it," he says.

But it is not all about studies. He says: "From ticking off your bucket list to meeting new people as you join various clubs and societies, student life will offer you opportunities that go way beyond education."

At SIT, students can undertake various projects, ranging from academic projects to student-managed events such as freshmen orientation camps, welcome bashes and special interest events.

Mr Ong is collaborating with his peers and some teaching faculty members to develop an adaptive online learning course to help first-year engineering students to adapt to university life and encourage them to learn at their own pace.

For those debating what to do after their A levels, his advice is to plan ahead, be goal-orientated and know one's priorities.

"Working part-time in a field related to the course of study you plan to enrol in will also gain you more exposure," he says.

Mr Ong's current work attachment at SBS Transit enables him to gain insights into rail transport operations.
PHOTO: CHONG JUN LIANG

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