Professor Chua Kee Chaing, who is heading the Singapore Institute of Technology's review, said the aim is for each graduate who becomes a professional in a particular sector to have enough knowledge in complementary fields to acquire more skills later. ST PHOTO: MARK CHEONG
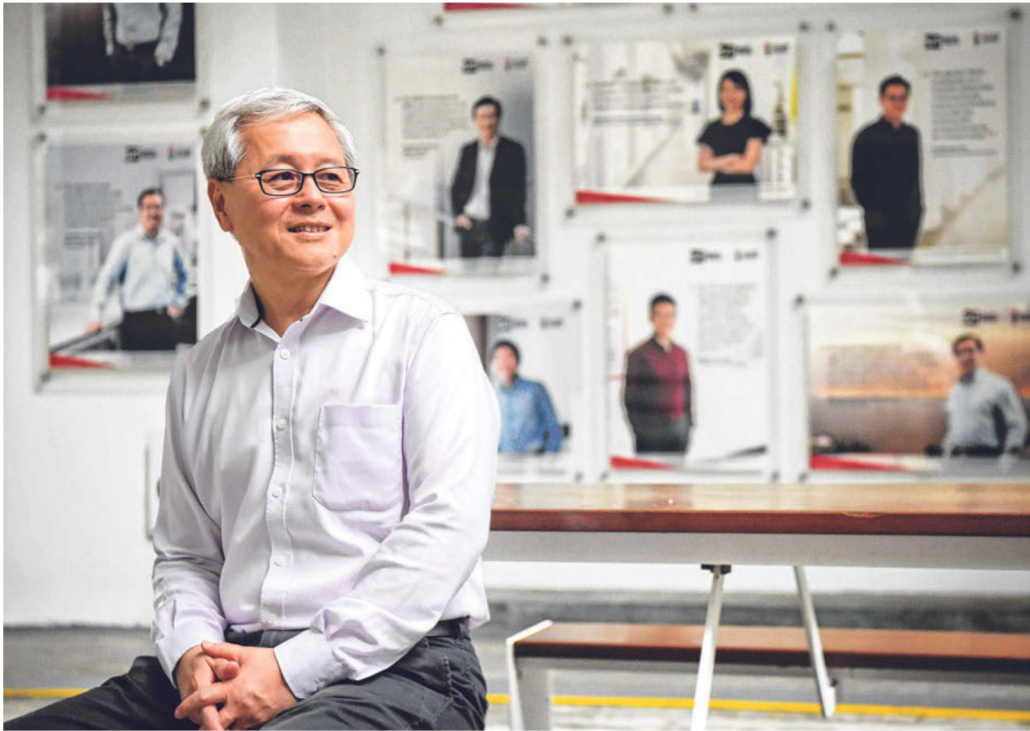
SIT will enable more interdisciplinary teaching by reorganising its academic structure so that degree programmes can draw teaching resources from various clusters. It is also introducing more micro-modules outside students' core curricula in areas such as general knowledge and workplace skills. These include topics like intellectual property, understanding financial statements, career management and interpersonal skills.

SIT reviewing its curricula to prepare youth for disruptions

Emphasis on interdisciplinary learning so they can pick up skills beyond their specialisations

Amelia Teng
Education Correspondent

The Singapore Institute of Technology (SIT) is shaking up its curricula to ensure its students are better prepared for disruptions in the workforce.

It is infusing about 15 per cent to 20 per cent of its degree programmes with content that cuts across disciplines, starting with fields like accountancy, mechanical engineering and occupational therapy.

The changes, which could take the form of courses or industry projects to help students see beyond their own specialisations, will start from the next academic year in September.

SIT provost Chua Kee Chaing told The Straits Times that it is taking the next two to three years to review curricula to factor in changes in industries.

Professor Chua, who is also deputy president (academic) and is heading the review, said there will be a greater emphasis on interdisciplinary learning, beginning with the university's own 17 bachelor's degree programmes.

SIT has a further 17 joint degrees and four others offered by overseas university partners.

Prof Chua said: "We think that it is very useful before (students) go off to work, to give them some grounding in terms of disciplines that are adjacent to their main disciplines."

The aim is that while each graduate becomes a professional in a particular sector, he or she will also have enough knowledge in complementary fields to pick up more skills later if needed, he added.

SIT will implement this interdisciplinary push in a more targeted way, rather than open up a basket of general modules that students can choose – a practice adopted by larger universities.

Courses and projects will be customised for each degree programme so they stay relevant to the main profession that students are training for. This will be done by taking a deep look at each degree programme and tracking trends in different sectors.

Prof Chua cited new technologies like machine learning and artificial intelligence in accountancy. Healthcare professionals also need to have some knowledge of assistive robotics, which plays a key role in the care of elderly patients, he said.

This means that students could be taught by lecturers from different disciplines.

SIT will enable more interdisciplinary teaching by reorganising its academic structure so that degree programmes can draw teaching resources from various clusters if necessary.

The faculty belong to five main clusters: engineering; chemical engineering and food technology; infocomm technology; health and social sciences; and design and specialised businesses.

The accountancy programme, for example, is taught primarily by faculty from the design and specialised businesses cluster, but it now also taps faculty from infocomm technology to teach courses such as business analytics.

Two other engineering degrees already straddle the engineering and infocomm technology clusters, while the rest of the programmes are being reviewed.

SIT is also introducing more micro-modules outside students' core curricula in areas such as general knowledge and workplace skills. These include topics like intellectual property, understanding financial statements, career management and interpersonal skills.

Some of these modules will be compulsory and credit-bearing, said Prof Chua. SIT also plans to offer these modules to alumni and the public.

Over time, the university hopes to change attitudes towards learning, noted Prof Chua, so that professors do not over-teach content that could quickly become outdated, while allowing students to step out of their comfort zones.

"It is that inertia, fear that you need to overcome... (and) being comfortable to learn something beyond what you're comfortable with," he added.

ateng@sph.com.sg