The Nanyang Technological University has unveiled a major revamp of its curriculum structure.

The changes will apply to all incoming freshmen this year, and involve more choice and flexibility in course electives, and fewer hours in the classroom.

More students will also get the chance to spend time overseas for exchanges with partner universities or internships. Currently, about 50 percent of students do so; the aim is to get this up to 70 percent.

There is now already some element of cross-faculty study at NTU.

For instance, engineering students spend about 25 percent of curriculum time on electives.

But under the new structure, that will be expanded, to at least 30 percent and up to 45 percent of curriculum time.

These include new options in Liberal Studies, as well as a compulsory course in Environmental Sustainability, on top of the roughly 800 electives already available.

NTU is also introducing a new Renaissance Engineering Programme which melds engineering with business management modules.

The aim, it says, is to "groom an exclusive breed of engineering leaders into future Chief Executive Officers and Chief Technology Officers."

It will also start two new double degrees in Business and Computer Engineering, and Business and Computer Science.

Professor Er Meng Hwa is the Senior Associate Provost overseeing undergraduate education.

He says on average, a student may end up taking three or four fewer modules across his four years at NTU.

"Even though there's a reduction in terms of contact hours, it doesn't mean there's a dilution in terms of the learning experience, in terms of strengthening their foundation."

Instead, more time will be devoted to independent study and...
group learning.

Teaching methods will have to change too.

This means greater use of IT, and smaller class sizes.

NTU’s incoming President and Provost, Professor Bertil Andersson explains the need for reform.

“The world is becoming more globalised, more multi-cultural, more inter-disciplinary. However we have to admit as university people that maybe our undergraduate courses have been more conservative. Maybe we teach in the same way as we did 20, 25 years ago. And I think there’s a big change that has to be done.”

But for learning to change, the whole campus environment must change too.

NTU says this means new classrooms that facilitate student-lecturer exchange and group discussions, as well as more residential halls and recreational spaces.

Some of these were laid out in NTU’s campus masterplan, announced earlier in the year.