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One of his physics professors was headhunted and is now working at an American finance company. Another physicist had a job offer five days after his PhD exam at the National University of Singapore (NUS), and now earns an annual starting pay of $300,000 at an investment bank in London.

These are little-known anecdotes Professor Andrew Wee is happy to tell, even if they detail talent leaving the physical science sector for finance; the NUS Faculty of Science dean has an important takeaway lesson from them.

He says: "Top banks and finance companies prefer to recruit graduates from the hard sciences, such as theoretical or computational physics and mathematics. Such graduates have strong analytical and quantitative skills much needed in the finance industry."

It is a point Prof Wee has honed four months into the job and one he would focus on even at the end of his three-year appointment. In his dean's message on his faculty's website,
he says: "If you have a passion for science, I have good news for you. You can make a living from science!"

What is implied is the extent of the competition the business and finance sectors pose to the hard sciences. Reflecting an international trend, NUS is not attracting enough students to major in the hard sciences. Only 5 per cent of its students major in physics, far fewer than what industry, research institutions and, especially, education needs.

For example, the Education Ministry is converting engineering graduates to the teaching of physics, Prof Wee informs Today.

But he does not want people to think that teaching is the only option for physics and maths graduates.

A quarter of science graduates take up education-related jobs, while another 25 per cent go into R&D. The rest pursue a variety of careers.

"(My) most immediate task is to explain to the students, parents and teachers that in this day and age, a strong scientific foundation is excellent preparation for the knowledge-based economy," he says.

Perceptions will not change overnight, though. While anecdotes such as the two cited by Prof Wee are "prevalent" in the United States, this is not yet the case in Singapore. For the numbers to grow, more financial analysis work needs to be done here.

While he highlights the finance industry, Prof Wee, who has taught at NUS for 17 years and was previously physics head, would like nothing more than for "good students with a passion" to stay in the physical science sector.

And Prof Wee knows how much the job market matters to people. When asked if science suffers from an image problem, he points out that biomedical sciences are now extremely popular 40 per cent of NUS science students major in life sciences due largely to the growth of its R&D sector. He adds: "We want to tell prospective students that the physical science R&D sector is growing rapidly in Singapore, and top talent is needed."

For example, nanotechnology, which deals with matter on a very small scale, is an area the Economic Development Board is developing and one that requires more organic intellectual property creation and fewer multinational corporations.

Last year, the faculty introduced nanoscience as a minor, while the Agency for Science, Technology and Research and its research institutes offers scholarships in nanotechnology.

As in life sciences, though, students ought to pursue graduate studies to stand out in the physical sciences.
"You're called an engineer if you have a bachelor's in engineering, but you're not called a scientist if you have a bachelor's in science," said Prof Wee. "Science training needs independent research, which is only possible at a graduate level."

This could be one reason why some students do not opt for science. But is there also a need for science educators to simply make the study of science more exciting.

"We're trying to package things to make science more attractive," said Prof Wee.

This academic year, NUS Science will launch a new specialisation astrophysics for physics majors. "There are some strong astronomy clubs in school. We want to tell people astronomy is not just a hobby," he said. The faculty has also introduced a minor in biophysics to ride on biosciences.

'We're confident youngsters are interested in science. It's when they come to the university and have to make a hard decision that's when we hope we can change their minds," he said.

If you have a question about career opportunities or studies in science for Prof Andrew Wee, email succeed@newstoday.com.sg and we will publish his reply next Monday in Quiz Time.

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