

MATHEMATICS AT WORK

Is a degree in mathematics any use? Is mathematics at university interesting? Is it fun? In an attempt to illuminate these knotty questions, we intend to print a series of interviews with mathematics graduates from the University of New South Wales. We hope this will show some of the careers that our graduates have found for themselves and how they look back on their days at this University. Your Editor would be delighted to hear from anyone wishing to share either experiences or reminiscences with other readers.

This department begins with an interview of Anne Fitzpatrick, as told to Amanda Wilson of the Public Affairs Unit at the University of New South Wales.

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If Anne Fitzpatrick hadn't studied mathematics she might still be selling sewing-machine parts instead of holding down a prestige job with a staff of 30 people.

Anne is quite definite that without a mathematics degree she would never have landed her job as supply manager for the University Co-operative Bookshop, responsible for buying all the textbooks for every university from Darwin to Gippsland.

At high school in New Zealand, she developed a love of maths, but it wasn't until four years after completing her HSC that Anne Fitzpatrick became a first year student in the School of Mathematics at the University of New South Wales. She enrolled initially as a part-time student, doing mathematics and the higher theory of statistics and working at various part-time jobs until taking up full time studies in 1974.

"I was reasonably well up in my class at high school, but I really blossomed in maths at uni because I found that you can seek support when you need it and there are always people there to help you. At uni, there is a wide range of people around you all interested in the same thing mathematics," said Anne.

"Girls who love maths at school and find that perhaps they are the odd person out in their group of friends, will really find themselves at home at university. I met a lot of friends at UNSW all doing similar things and there were as many girls as boys studying maths. The girls all did very well and their social lives didn't suffer at all. Most of the blokes you meet at uni, by the time they have gone through a couple of years, are looking for someone they can relate to on an intellectual level. University is a tremendous place.

"I found the School of Mathematics at UNSW very enjoyable. The lecturers were easy to talk to and very helpful. They certainly encouraged the women as much as the men and did everything they could to help us in our careers. It's a great, friendly atmosphere," said Anne, whose husband, Ross, studied engineering at a technical college and then did an industrial arts course at UNSW.

Anne Fitzpatrick graduated at the end of 1975 with honours in statistics and for the next 12 months was President of the Students' Union at UNSW. In 1977, she started working for the Co-op Bookshop as Campus Liaison Manager, a job in which she relied on her experience in the Students' Union. Soon, she became Systems Manager, which was a project management job analysing the Bookshop's needs for replacing cash registers and organising their installation in outlets all over the country. Last year Anne was promoted to her present position, a very responsible job which she admits would never have been possible without a mathematics degree.

"The main benefit of studying mathematics is that it gives you an analytical approach to problem solving. Ours is a big, complex organisation and anything I do has ramifications right throughout, so I need the ability to think things through every step of the way and see the end result without actually trying it. Maths training, more than any other discipline, gives you the ability to analyse the problem and find a solution. In business, you just can't afford to try things to see if they work and perhaps make mistakes.

"I've probably got the most un-mathsy job of all my uni friends, and yet I wouldn't have it without my maths," said Anne.

Many of the people Anne studied with at UNSW have gone on to interesting jobs, which goes to show that people who love mathematics don't necessarily become teachers. One woman, who is now 26, is a training officer for a large computer software firm which has sent her to the United States twice. Another was working for the Commonwealth Bank as a researcher before returning to the University to study for a doctorate and several others have gone into computing as systems analysts.

"I think that doing maths opens up a tremendous number of opportunities and allows you to move into general areas like management and research because of that special training in problem solving. The maths course at UNSW also gives you a good understanding of the basics of computers. As a degree, it is very highly regarded in the business world.

"The thing about maths is that you must have a feeling for the subject — I always found it very interesting. Sometimes, though, it is a bit difficult to see where all that study is taking you," she said.

Anne has some good advice for high school students who are hoping to continue their mathematics studies at universities — and who better to give advice than someone who came through with honours. The best thing to do when you are having trouble cracking a problem, says Anne, is to leave it for a while, go and do something else and more often than not, the solution will just hit you.

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