"Why I want to be a professional engineer"

Anna Johns

I always thought I wanted to be a doctor or surgeon when I grew up. I thought it would be the most rewarding career, and the best way to make a difference in society. It was hard for me to admit a few years ago that I am not the strongest person when it comes to blood and needles, but today I still want to contribute in some way to the medical profession.

At primary school Friday was my favourite day of the week; mostly because of the weekend but just quietly I loved my weekly F.P.S class. In Future Problem Solving we were given problems from over population on earth to unsustainable energy, looking for solutions. It was all about imagination, practicality, efficiency, communication and team work, exactly what I want in a career. F.P.S was unavailable at the high school I attended however it gave way to a new passion. Physics, chemistry, biology and math have been by far the most interesting and demanding subjects for me in the past three years. Science and math have developed now from only a passion to a strength as well and I am determined my future lies in their applications to today's problems and in the future. That's where engineering comes into it.

Achieving a degree in engineering at the University of Canterbury is now an official goal. I like the practicality and problem solving aspects of engineering and am looking forward to the intermediate year of BE(Hons) next year. One of the greatest things about the degree is the diversity of subjects to specialise in. The intermediate year will keep my options wide open and there are so many choices. At this stage I'm looking to continue with mechanical engineering, and head off in the direction of medical technology- instruments and implants etc. I find the medical side of things fascinating and the idea of directly helping people is incredibly rewarding.

Another department within Mechanical engineering at Canterbury, bioengineering, equally catches my attention. This year in particular, the biotechnology and contemporary issues we studied briefly in class, were fascinating. Since then I have been looking at possible careers that incorporate biotechnology with engineering. Bioengineering is a post graduate degree so I am looking into staying on at uni to extend my degree. This area has much potential and could save millions of lives and applying science to technology and machinery would be challenging and rewarding.

My mother has been a physiotherapist for nearly thirty years and tells me bioengineers are at the cutting edge of new research into the understanding of acupuncture and other methods used for assistance during healing. It seems bioengineering holds much potential with human health in the future. Head of Oracle, Larry Ellison mentioned at a conference that if he was 21 again he would go into bioengineering and research, where he believes there is a big future.

Apart from the highly acclaimed engineering department at the University of Canterbury, the attraction for me was the internationally regarded centre of bioengineering. My brother is currently a mechanical engineering student and recently had the opportunity to have a look inside the mechanical engineering research department. I was very impressed by the variety of final year projects. One project was a pump to simulate blood flow in a person's brain. It was explained that with this simulation, computer models could be verified and one day used to predict the effects of a stroke on blood flow in the main arteries of the brain. I was equally impressed by the new method of detecting breast cancer and the

research involved in developing this technology. It appears that these two projects will one day have a significant impact on the delivery of medical treatments and in future benefit everyone. How incredible that I could be working on something like that in less than four years, imagine what the future could hold for me following my degree?

My future is so exciting and I'm so blessed to have the potential to extend myself at university. I have the possibility to help people who are not as fortunate and I will achieve more with a career 1 love. A degree in engineering will put me in the right direction but it still comes down to me.

Ghandi once said "Be the change you wish to see in the world." It's about being proactive, getting involved with the solution and not the problem. Engineering will give me these opportunities. I could have the power to make a difference.

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