

ESSAY: WHY I WANT TO BE A PROFESSIONAL ENGINEER

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“Engineering is not merely knowing and being knowledgeable, like a walking encyclopaedia; engineering is not merely analysis; engineering is not merely the possession of the capacity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organised forcing of technological change... Engineers operate at the interface of science and society.” - Dean Gordon Brown.

Prior to starting secondary school at Spotswood College at the age of 13, I had little knowledge of the vast opportunities that the field of science offers, nor did I realise how intriguing and exciting science can be. It was in my first year at high school that was introduced to general science, a subject which I would continue to study for three years. I found that the areas within the science curriculum that I enjoyed the most were practical, real-life situations that were relevant to the real world, not just the world within the school laboratory. The process of applying scientific methods to solve real-life problems continued to interest and intrigue me throughout my years of studying general science, and I soon realised that science was the field that I wanted a career in. This idea hasn't changed.

In my second year of high school at Spotswood College, I was offered the chance to take part in an extension program in Chemistry before school three times a week, as well as continuing with general science as a subject. Throughout this year, I was continually amazed at the many different fields that chemistry, and also science as a whole, is composed of, yet once again it was the real-life, real-world applications that interested me. It was at this time that I started researching engineering as a career option.

By the time I reached Year 12, I had to decide which fields of science I wanted to continue studying in. Throughout my previous years at high school I had found that it was the fields of chemistry and physics that captivated me and held my interest, so the decision as to what subjects to take was not a hard one. I chose to extend my knowledge that I had gained through the general science program and the extension program in chemistry and to study chemistry and physics through my last two years at college. These are the areas of science that I continue to enjoy the most and therefore excel in. I feel motivated to do my best in these two subjects because they offer so many opportunities to learn about the society we live in and how it is advancing more and more each day. Not only is it amazing being able to understand how the world we live in works, but within these two subjects I am continually challenged to look at problems from a different perspective. This gives me a chance to develop my problem solving skills as I am tested on my knowledge of these amazing and diverse subjects. Combining the fields of physics and chemistry offers a view of the world from a truly amazing perspective – the engineer's perspective.

Although for many years I have been determined to achieve my goal of a career in the field of engineering, my parents wanted me to ensure, through discussing with people established in the field, that this was definitely the course I wanted to take. It was purely by chance that, while travelling on a tour through Europe recently, I made friends with two Australians who have graduated with degrees in engineering and are now beginning their working life as engineers. Talking to them about their degrees, their interests within engineering and where they have ended up as a result offered an insight into the world of engineering and served to confirm, to myself and to my parents, something that I have known for years – that engineering is the path I want to follow.

The degree I wish to study for is a Bachelor of Engineering at the University of Canterbury in Christchurch. Upon extensive research, I feel that this degree offers me the amazing opportunity to combine my knowledge of chemistry and physics in a way that interests and challenges me and will keep me motivated to continue achieving as highly as I can. As there are so many different branches of engineering specialisations, I will be taking a full workload of eight papers that will allow me to experience a wide variety of engineering disciplines in my first year of study. This will allow me to find out first hand the specific areas that I enjoy and that interest me the most and give me the opportunity to decide between many specialisations as I continue my studies.

I am very committed to my studies, understanding that it is the basis of my future and that if I am to succeed later in life, I need to put in the hard work now. Within the past few years, I have accumulated a huge number of co-curricular and extra-curricular activities – ballet, speech and drama, soccer and lawn bowls to name but a few. Although many people would find such a busy and chaotic life hard to handle, it has taught me that organisation, time-management and hard work are the skills that are going to help me through life. I am prepared to study and work to the best of my abilities, as I have chosen a career path in a field that interests me, at a university with a great reputation. I believe that being a part of such a renowned academic institution, studying towards a degree in a field of science and engineering that I enjoy, will give me inspiration to push myself to reach my full potential and achieve the highest I am capable of.