

SAMPLE STATEMENT OF PURPOSE: Environmental Engineering

My interest in Chemical Engineering was sparked during my first undergraduate course at India's prestigious IIT, Kharagpur. It was there that I was introduced to a wide range of subjects, inside and outside the field, such as mass transfer, heat transfer, fluid mechanics and transport phenomena. But it was the field of environmental technology that particularly captured my interest. The desire to delve deeper into this timely globally important subject drove me to take elective courses in industrial air pollution control, non-conventional energy engineering and environmental earth sciences. While offering both depth and breadth across this field, these courses also put into perspective the importance and relevance of Chemical Engineering and the application of its fundamentals to environment-related problems. I came to realize that although traditional environmental studies has been under the domain of Civil Engineering in the past, the increasing complexity and magnitude of the world's environmental problems has resulted in a growing need for skilled professionals who have studied disciplines other than just civil engineering.

By the time I completed my undergraduate work, I had acquired a strong grounding in the theoretical concepts behind chemical engineering and a keen interest in environmental technology. I knew I would want to continue my graduate studies in the field after getting some practical business experience.

During the eight week Summer Training program at Development Consultants Ltd., I was assigned to the Cement Cell, where I gained an understanding of the cement manufacturing processes. As an Industrial Intern, I was assigned a project on Cement Plant Design (1800 TPD), which encompassed Raw-Mix Design and Capacity Calculations for various equipment. Here, I got acquainted with the pollution problems and energy conservation challenges faced by the cement industry and devoted a significant portion of my project to devising pollution abatement methods.

My final year dissertation was on the Manufacture of Phosphoric Acid from Rock Phosphate using Sulfuric Acid (Design of 100 tpd Plant). This covered the design of a reactor, extractor (for acid purification) and evaporator (for acid concentration). As a natural outcome of my interest in pollution control, I also focused on waste gases and waste water treatment, which involved off-gas scrubbing (venturi design) and discharge method details, gypsum disposal methods, disposal of fluosilicic acid as waste material and the incorporation of all these in the Plant Layout/flow-sheet.

Throughout my undergraduate studies at IIT, Kharagpur, I maintained an outstanding academic track record. I was consistently ranked in the top 2% of the students of my class, in school, and consider the high point of my achievement being ranked in the top 1% of the students who wrote the Joint Entrance Examination for admission to one of the six Indian Institutes of Technology.

Over the entire course of my education I also made time for extra-curricular activities that helped me build my organizational, interpersonal and leadership skills. Those activities

include being elected School Pupil Leader (Head Girl) helped me hone my organizational and interpersonal skills. At IIT, I have been involved in the annual cultural festival as head of the control tent team, been an active member and later served as governor of the Technology Dramatics Society (English chapter), and also have been a member of the NSS's Literacy, and Health and Nutrition Programs. I continue to be a member of the Helpage Society of India, which provides palliative care to terminally ill cancer patients.

My undergraduate education and service to the community have been personally and academically enriching and I am determined now to advance my knowledge with a graduate degree. My immediate objective is an M.S in environmental engineering, a rapidly evolving field with an immense potential for research. Longer term, I wish to earn a Ph.D so that I can pursue a career in research and experience the excitement and satisfaction of being at the forefront of this vast expanding field.

Your extremely distinguished faculty, broad-reaching curriculum and cutting-edge research facilities have motivated me to apply to your program. I believe XXX's program will help me acquire the knowledge, skills and versatility needed to reach my full potential as an engineer. It would be a privilege to secure admission and adequate financial aid to pursue graduate studies at your university. I am confident that I will meet the high standards set by XXX University and make you proud of the contribution I will make to our field.