

## **Study Plan/Research Plan**

I am writing this to apply for a place in the Master's program at University in the Department of Chemistry.

## **About Yourself**

When it comes to specific character traits, I would describe myself as curious in regards to mechanisms and processes in natural phenomena, which is why chemistry has appealed to me. It is creative and knowledge-satisfying to search and try in order to look for new discoveries within this extended and interesting area. Apart from studying I am an outgoing person who likes to interact with people from all over the world. Some of my interests include studying scientific journals, being updated on trends in chemistry, travelling, learning to cook and attending any educational fair. As a person I describe myself as kind and empathetic and I strive to use my knowledge and skills to help society.

## **Academic Background**

I have done my Bachelors in Chemistry (BS Chemistry) from Govt APWA College for Women Lahore Pakistan. While studying through my undergraduate program, I was able to acquire solid grounding in both taught and practical courses in organic, inorganic, physical and analytical chemistry. A few of the advanced modules are spectroscopic techniques, instrumental analysis, etc., these modules enhanced my interest in doing a major in Analytical Chemistry.

Further, as part of my academic endeavor I was involved in vibrational spectra of matrices in the gaseous phase and inert gas matrices, and exposure to photoelectron spectroscopy some of which are available on Academia.edu. These experiences energetically fueled interest within me to learn about diverse and complex tools of analyzing data and their use besides viewing them as a mere compilation of formulas to solve problems in a pragmatic sense, quite specifically in environmental and industrial chemistry.

## **Work experience (if any)**

During my undergraduate education, I involved myself in many educational activities that heartfelt education, for instance, environmental conservation, and laboratory safety training. I also worked on projects that concerned CBDE Awareness which is viewing signs of a chemical or biological

agents dispersion. Additionally, immunization strategies and universal health coverage was initiated together with certified training I followed, where interdisciplinary work and approach in problem solving and research were emphasized.

### **Why China?**

That is why I have opted to do my Master's in China given its quality learning institutions and modern research equipments in chemist. I have learned that Universities in China stress on the practical training , research in groups and in possession of better analytical instruments which suits my aim in academics.

### **Why research in China?**

One institution I am particularly keen on joining because of its impressive featuring of College and Research Chemistry, program and fabulous equipments such as Research Centers in Chemistry. The faculty members based from all over the world can provide different approaches in tackling a problem, the interdisciplinary research will also expand my perspectives in approaching a problem. Another key factor that makes the university right for me is that it has various opportunities for learners to engage themselves in acts of different nature; in addition this university consists of menses of different diversities hence making it the best place to be when it comes to growth not only academically but also personally.

### **Research Interests**

My academic focus is in analyzing research problems in environmental and industrial chemistry and developing and applying effective analytic methods towards solving them. More particularly, I wish to focus on spectroscopic and chromatographic approaches to the detection of pollutants in the atmosphere, aquatic environment and terrestrial substrate, respectively. Among my research focuses, I consider it important to investigate the adsorption behaviors of heavy metal ions in industrial effluents using FTIR spectroscopic and chromatographic techniques. Overall, therefore, the findings of this study have great implications to environmental sustainability and pollution control. Moreover, I am interested in studying new frontiers such as nanomaterials and their application in catalysis and chemical and pharmaceutical analysis based sensing. The mechanical conclusion from my Master's degree will enable me to attain recent and sophisticated knowledge in Chemistry.

## **Future Goals**

The successful completion of my Master's degree will equip me with cutting-edge knowledge and practical expertise in Chemistry. I envision synthesizing new technologies to monitor and control pollution and apply these technologies to global environmental concerns. I want to take up a full-time job in an academic institution or in an industrial research lab where I can create positive change and spearhead key research projects.

Looking forward to hearing from you positively. Please accept our thanks for your consideration and your time.