

Statement of purpose

Applicant of graduate program

To whom it may concern:

It is my pleasure to write this statement of objectives to declare my interests and to share my inspirations, professional qualifications and future goals.

I desire to pursue my graduate studies at Oregon State University as I believe a graduate education will assist me in reaching my main goal which is to develop my experience in researching in different chemical engineering areas. Oregon State University impressed me for many reasons: first, my professors introduced and explained it to me as a prestigious university not only in the United States but also in the world. Second, the opportunity to study under expert professors in this university, who are well-known for their researches in the chemical engineering world, can broaden horizons in chemical engineering research for me. Regarding my experience, I am looking forward to working with these professors and I hope they would support me in achieving my ultimate goal. Third, studying and living in the United States will allow me to improve global and social values in myself. I think besides my theory and practical experiments which I learned in my bachelor program, working on my favorite research areas which exist in Oregon State University will make me a well-trained chemical engineer. Also I can gain suitable qualifications to work as a chemical engineer in petroleum industries.

To describe my character and personality briefly, I should say that interest and enthusiasm in the subject has always played the major role as the motivation for my continuous endeavors to achieve my goals.

Over the years in school, as I was so interested in chemistry, physics and applied mathematics, I selected an undergraduate course in chemical engineering because I felt it was the only field which included study of the basic sciences and mathematics. Another reason behind this choice was that, I searched about different kinds of engineering but I found that just chemical engineers create innovations by solving technological problems that affect the life of normal man in surprising ways. For me, this was a great opportunity to directly serve society.

In the period of study at AmirKabir University of Technology of Tehran, I have undertaken various courses like Heat transfer, Fluid mechanics, Mass Transfer, Unit Operations, Chemical Reaction Engineering, Industrial Management etc. which have introduced me to various theoretical concepts and methods which are widely used in the chemical industry. During this period, I also have been getting to know professors who are experts in their fields and have successful backgrounds in their researches. Working with them is the best experience in my period of study. Participating in several workshops was another outcome of these communications for me which helped me to have more knowledge about chemical engineering issues in comparison to an ordinary chemical engineering student.

During my undergraduate study, I have studied about catalyst and different uses of this material in chemical industries, in addition; I have been strongly interested in teamwork and experimental researches, hence; I decided to join the Catalyst group under supervision of Prof. Halladj

in our department, because of my strong background in the department I was accepted in the group. My major research, which my bachelor thesis is based on, is entitled "Effect of Multi Structure Directing Agents on the Synthesis of Nano Sized ZSM-5." It has been well known that ZSM-5 zeolite, one of synthetic zeolites with high silica content, is a promising catalyst for the conversion of lower hydrocarbons or methanol to gasoline and middle distillate. We have been working in catalyst groups for a year to synthesize ZSM-5 with new templates and carry out some tests on them to collect data and observe how ZSM-5 reacts. Besides, I have studied over thirty articles about Dendrimers to get general information, especially about Polyamidoamin (PAMAM) Dendrimers. Dendrimers are class of polymeric material that the structure of this material has the great impacts on the chemical and physical properties of it which helps to bring drugs to target cells. Studying about this area has given me a general review and has encouraged me to work further on Drug Delivery areas. If I have opportunity, I would like to do some research and practical experiment in this field because I think I have enough general knowledge about that.

In the third year of my undergraduate, I spent my training course in Offshore Oil Company where I learnt a lot about inspection and maintenance, different production processes and mechanisms. It was an amazing experience because the relationship between my courses and their practical applications became quite clear for me.

For three years, Regarding my interest and dominance in teaching, I also have worked as a mathematics teacher in some private institutions in Tehran which help me to enhance my skills in teaching, managing class and making relation with students. Because of this experience and my academic background, I have an offer from one of my professors to be a teacher assistant for undergraduate students; if I continue my education in master in department of chemical engineering at Amirkabir University of Technology.

In summary, after four years of studying, teaching, researching and lots of experience in different fields to be versatile in the highest level university and academic environment in my country, my insatiable enthusiasm in learning new things and research leads me to decide to start my graduate program in a higher academic atmosphere in the world. I feel that a graduate study program in chemical engineering at Oregon State University will help to prepare me for a successful career in the chemical and petroleum industry. It would be a great privilege to do my graduate studies at Oregon State University and I am quite confident that I will match the high standards set by your famous institution.

Best regards,

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