SAMPLE-1 "STATEMENT OF PURPOSE" TO ACCOMPANY GRADUATE APPLICATION

Statement of Purpose

Name: First Last January 4, 2010 Civil Engineering (Geotechnical specialty)

I am a senior at the University of Missouri. I am studying Civil and Environmental Engineering, with an emphasis in Structural Engineering. I expect to graduate this upcoming May, 2010, with a Bachelor's of Science degree in Civil and Environmental Engineering, with honors from both the College of Engineering and the College of Arts & Sciences. I am proud to say that I am among the very best in my class. During my undergraduate career, I have gained knowledge and experience in the classroom, in the laboratory, and in practice. I wish next to enter XYZ University's graduate program in Civil Engineering (Structural specialty).

Structural engineering is the intersection of the fields I find most interesting, exciting, and intellectually and practically satisfying, namely Engineering, Physics, and Mathematics. I have worked diligently these past four years to increase my understanding and mastery of these subjects, and I have greatly enjoyed the process. I wish to study Structural engineering at XYZ University so I can further investigate and contribute to the understanding of various physical phenomena encountered in Civil Engineering, which will lead to more accurate assessment and use of the engineering characteristics and potentials of materials, sites, and processes. My specific interests include Continuum Mechanics, Computational Mechanics, Multiscale Modeling, and Geomechanics.

Over the summer breaks of 2007 and 2008, as well as the winter break between them, I worked as an engineering intern at Engineering Design Source (EDSI), Inc., which is a Civil Engineering design and consulting firm in St. Louis, Missouri. During my time at EDSI, I performed various tasks, including computer aided design with AutoCAD and Microstation; private site investigations, evaluations, and cost estimates relating to mitigation of combined sewer overflow; underdrainage and storm sewer design; and automatic and manual traffic counts.

I have enjoyed myself learning about the theory behind engineering applications, and I have also enjoyed the experiences I have had with experimentation and research. There is something extremely satisfying about performing an experiment oneself, analyzing the data retrieved, and interpreting the results in a meaningful way.

During summer break of 2009 I worked as a research intern in Dresden, Germany, at the Technical University of Dresden's Institute for Construction Materials. There I performed tests and analyzed data on water vapor and carbon dioxide diffusion rates, as well as rates of capillary water absorption, through fiber- and textile-reinforced concrete specimens of various compositions and developed strains. I also analyzed data obtained by others from combined uniaxial tension and air permeability tests on the same or similar specimens. The study was still underway at the end of my internship, so I was unable to write a paper on it; however, I am confident that my efforts will contribute to the final assessment. Moreover, I assisted the TU-

Dresden concrete canoe team in constructing two of their canoes, and I joined them in competition at the 12th German Concrete Canoe Regatta in Essen, Germany.

I am a participant in the Engineering Honors Program at MU, and as such I will perform a research project next semester under the guidance of Dr. First Last. My project will be the experimental determination of strength and deformation characteristics of Missouri soils via direct simple shear testing, and at the end of the semester I will submit a formal written report documenting the procedures and results of my investigation. The project will support a larger scale research project undertaken by the MU Geotechnical Engineering faculty for the Missouri Department of Transportation (MoDOT), whose aim is to develop new specifications for Load and Resistance Factor Design (LRFD) of bridges within the state.

As a Peer Advisor at the University of Missouri, I have instructed a single-credit, Engineering-focused, freshman seminar each fall semester for the past three years. A major component of this seminar was curriculum integration, and as such, I have gained valuable teaching experience in areas such as Calculus and Engineering Ethics.

My ultimate goal is to become a university professor, where I can conduct research and instruct students in Structural Engineering, Mechanics and related subjects.

- 1. One-page Statement of Purpose is strongly encouraged. Statements <u>must not exceed 1.5 pages</u> in length.
- 2. Format: 12 point Times New Roman font, 1-inch margin on all sides, 1.5 line spacing
- 3. Address the following in the Statement of Purpose:
 - a. First paragraph: Introduce yourself, provide a brief background and state your immediate career goal/objective
 - b. Second paragraph: Explain what led you to your interest in specific studies.
 - c. Third paragraph: If applicable, provide a brief description of your engineering practice, e.g., jobs, internships, etc.
 - d. Fourth paragraph: Briefly describe any other experiences that either helped you to decide on graduate studies in your designated area or helped to prepare you for graduate studies.
 - e. Closing paragraph: Very briefly describe your long-term career goal(s).