

Teaching Statement

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I have taught many students from a variety of disciplines and levels ranging from first year business majors to computer science graduate students. I have truly enjoyed the experience and learned from it. I have decided to pursue a career primarily as a teacher with a balanced portfolio of research. To broad my knowledge of computer science, I registered as many courses as possible during my graduate study. More than 90 credit hours course work (60 credit hours during Ph.D. at Penn. State and 30 credit hours during M.S. at UNL; excluding research and individual study credits) gives enough background to teach a broad range of Computer Science discipline.

My approach to teaching has been developed as a result of observing faculty members during my graduate schools in both formal classrooms and informal meetings, especially my M.S. and Ph.D. research advisers. I taught a recitation class for business major students and my advisor's class as a substitution instructor. Currently, I am teaching an introduction to scientific computing course for computer science and mathematics at the senior undergraduate level.

I have two important principles that I follow in every class: **Motivated** and **Active learning**.

- **Motivated learning:** I strongly believe that the motivated student learns better. Therefore, in any classes, I provide customized examples of real world problems and a historical perspective on the solution methods. These examples will get the attention of students immediately and help students understand the concepts and their importance.
- **Active learning:** Students start to think actively when asked questions in the class. I often rose several challenging questions to initiate discussion to help student to think actively and creatively. In an effort to encourage discussion even outside the class, I also make myself available through open-door policy in addition to the regular office hours.

Scientific computing, numerical analysis and parallel programming are my favorite courses to teach. Since I have worked closely in these

areas, I could easily combine fundamentals with my research experience according to the level of understanding. In addition, I will help students to build fundamental computer science knowledge through classes such as **algorithms, operating systems, computer architectures** and **networks**, and build specific application oriented knowledge such as **computer graphics** and **cryptology**. During my military service, I designed military database systems and developed application software based on the software development military standard which give me knowledge of real applications in **database design, software engineering** and **programming**.

As one form of evaluation, I emphasize **class projects** and **presentations**. I believe that it is important that students learn to deliver ideas and information through writing and oral presentation along with class materials. Additionally, student should learn to work individually and as a team in a project. I would also like students to apply the experience and knowledge from class projects in their future career situations.

In summary, I want to be considered as an enthusiastic, dedicated and fair teacher who can actively engage students to promote learning and creative problem solving.