Teaching Statement

Through my experience in teaching two computer science courses and over ten teaching assistantships in University of Toronto, I have developed an effective strategy for instructing students. My strategies are threefold. The first focuses on the quality of lecture delivery, which involves extensive and careful lecture preparation and an interactive style of lecturing. The second deals with the quality of class administration, which involves providing the best possible resources and simple, clear instructions for the students to complete their course work. The third is concerned with friendly and respectful relationship interacting and communicating with the students outside of the classroom in email messages, office hours, and casual social encounters. I believe the effective combination of these aspects is the key to successful teaching.

I worked hard to prepare the lecture material to make them interesting, instructive, detailed, and catered to the type of audience. For typically young and curious undergraduate students, I find it much more effective to catch their attention early on beginning with interesting and real world examples that they can relate to, than starting the lecture with abstract theories and definitions.

For example, in my fall 2007 lecture on the theory of information visualization, my lecture slides started with an example of an intelligent and highly condensed graph that depicted the weather pattern of New York City for 1980 (New York Times, Jan 11, 1981, p.32). The graph naturally led to a discussion on why "a picture is more than a thousand words". Once the importance and effectiveness of information visualization was accepted by the audience, I introduced examples of visual illusions, such as the dramatic magic staged by David Copperfield that appeared to cause the disappearance of the Statue of Liberty, and explained the secret behind this magic. This introduction naturally conveyed the message that information visualization can be very powerful, yet tricky to design. The students were then motivated to pay attention to subsequent discussions of theory and practice in the rest of the lecture.

In addition to careful preparation of lecture material, I pay special attention to class dynamics and student behavior, and try to keep students actively engaged in lectures by frequently asking different students questions and for their opinions. I also pay attention to the mood of the students, and schedule questions and break times accordingly. I encourage collaboration among students through group activities, and often use group projects and presentations as two effective ways to allow students to apply the theories to real world practices, and gain presentation skills.

I believe there is great value in providing students with the best possible resources and instructions to do their work. I pay special attention to providing students with simple and clear instructions, central and easy-to-access documents and announcements, comprehensive and well annotated course material, so they may maximally capitalize on their time.

Finally, I pay attention to connecting with students respectfully and appropriately outside the classroom. I use that as an effective way to collect student feedback, so that I can make adjustments and improvements accordingly.

I would like to emphasize that my efforts for high standards in teaching are not in conflict with the other important goal for a professor – research. The experience I gained in my past practices has taught me that research and teaching are not mutually exclusive, but complementary. Researchers need to find intelligent and motivated students to carry out potential research projects, and teaching provides an excellent opportunity to identify such students, and lead them to research work. Students can also provide invaluable feedback and insight for potential research problems. To me, the opportunity to teach and interact with students is just as rewarding as investigating and solving challenging research problems.

Based on my background and experience, I would be able to teach introductory computer science courses in Human Computer Interaction, Software Engineering, Operating Systems, algorithms and data structure, and computer programming. I can also teach basic courses in library and information studies including information visualization and presentation, information retrieval, and digital documents and services. At the graduate level, I would be able to teach advanced HCI courses on input and interactive technologies, mobile HCI, auditory and haptic interfaces, and highly interactive visualization systems.