Teaching statement – Frank Drews

I am highly committed to teaching. My central teaching goals involve promoting knowledge of, understanding of, and enthusiasm for research, as well as providing career mentorship and advice. Like other committed teachers, I emphasize learning to critically evaluate research findings, which is a vital skill in an information society. By critical evaluation, I mean both the ability to see flaws in research, and the ability to detect well-executed research. These two facets of critical evaluation allow students to separate reliable and important information from information that is empirically less well supported. I do this by having my students read and criticize selected papers in form of homework assignments and by having students present their evaluation in class. In addition, this approach helps my students to develop their written and oral communication skills.

What is distinctive about my approach is an emphasis on the interface between basic and applied research. I provide my students in class with a wealth of real world examples of important theoretical concepts and am providing them with a context in which the research findings can be applied. In addition, I offer them opportunities to use their knowledge in broader contexts. For example, students in my Engineering Psychology class were evaluating a subject pool management system during its development, students in my class on Human Error are keeping a two week diary on errors they made or observed in others, or have to interview friends about the experience of break-downs in human-technology interaction. Projects like these are deepening the understanding how to apply the class material to real world problems.

I am strongly supportive of student-conducted research on the graduate and the undergraduate level. For example, as part of the Human Factors Certificate at the University of Utah that I created more than 15 years ago, students are taking on projects which are research oriented or have a focus on applied work. In my view, student-conducted research serves many important functions. First, it exposes students to the process of developing a question and employing empirical methods to answer that question. Second, it provides students with an insider view of the scientific process, a view which helps to better understand and evaluate research. Finally, in the ideal case, students engaged in their own projects must also present their findings to an audience, an important experience regardless of the career the students eventually pursue. I believe that the successes of my Certificate students speak to this approach. Over the last 5 years, annually at least two Certificate students presented at national conferences. In addition, since its inception, students mentored by me as part of the Human Factors Certificate program either won or finished among the top three places in the Annual Student Research Competition at the CSBS College.

Because the application of Human Factors knowledge in a job context is an important skill that becomes more and more important in an information society, the Human Factors Certificate also addresses this need. As a result of graduating with this Certificate many students in the past have been able to start in jobs that allow them to apply their knowledge at the work place.

Finally, let me speak about graduate student mentoring. My goal is to prepare my graduate students for both a career in academia and in industry. As a consequence, I provide my graduate students with opportunities to work on projects that are not related to their thesis work and allow them to broaden their methodological and conceptual knowledge. Another important facet of my approach is to encourage my graduate students to think and read outside the typical discipline lines. In my line of work this is crucial because problems often have to be addressed in an interdisciplinary way. I believe that supporting graduate students to become independent researchers is the most important goal of graduate training. Thus, my mentoring approach is relatively non-directive, allowing my students to develop the question that motivates their research during graduate school.