STATEMENT OF TEACHING PHILOSOPHY

GHITA MEZZOUR

I strongly believe that students learn more effectively when they feel engaged, perform hands-on work, and have a positive relationship with the instructor. Such belief has guided my strategy when serving as a teaching assistant for a graduate course on Introduction to Computer Security as well as undergraduate courses on Signals and Systems and Introduction to Java. Similarly, the same belief has guided my strategy when serving as an instructor for three summer institutes run by the Center for Computational Analysis of Social and Organizational Systems (CASOS). These summer institutes are one-week intensive courses that teach network analysis techniques to attendees from academia, industry, and government.

Students are more motivated to learn when they understand the importance and relevance of class material. It is critical to relate class material to real-world problems. Similarly, it is essential to explain that class material helps both professionals and researchers succeed in their careers. For example, during my Introduction to Computer Security recitations, students were more interested in learning about cryptographic algorithms after I explained that these algorithms are used by major websites such as Facebook and banking websites.

Moreover, student participation enhances students’ interest and provides feedback to both the students and the instructor. My classroom has always been active, except during my Signals and Systems recitations where students were initially not participating. I started bringing a bag of candy to class and rewarding each participation with a piece of candy. Suddenly, students started competing to participate. It was probably not candy that motivated students, but rather a desire to “win” and be valued.

Furthermore, hands-on exercises and projects make material more vivid and concepts clearer. For example, after giving lectures at CASOS summer institutes, I guided in-class hands-on exercises and worked with attendees in small groups to apply network analysis techniques to their research or work. After the hands-on sessions, attendees were much more enthusiastic about network analysis and had a better grasp of the concepts.

Finally, a positive relationship with students provides a friendly learning environment. I build such a relationship by learning as many students’ names as I can. I also informally talk to students before and after classes, and during office hours. I learn about their general concerns and job aspirations so that I can provide relevant guidance. Last but not least, I seek feedback that helps me improve my teaching skills, while enhancing each student’s experience in the course.

Based on my experience, I believe I am qualified to teach various cyber-security courses such as network security and computer security. I can also teach courses on social network analysis. Besides traditional courses, I am interested in developing and teaching an interdisciplinary course on big data for cyber-security.