

Teaching Reflections - CIS 410 Computer Networks

I have taught this course two times in the last two years (Spring 17, Spring 18) at SUNY Potsdam. CIS 410 is a 3-credit course that is primarily lecture based. This is an senior-level course and is a required course for computer science students.

Computer Networks is one of my fields of research expertise and correspondingly I was comfortable with a new prep for the course right from my first offering. To learn computer Networks, students need to be able to “visualize” communications between devices. This is possible by tracking “packets” through real networks or by probing packet traffic through a virtual network system. As part of this course, I introduced a NSF-funded virtual network lab called Global Environment for Network Innovations (GENI) for students to apply theoretical concepts learnt in class by creating their own network topology. This year, I’m introducing an additional lab on wireshark, a network protocol analyzer along with GENI. This lab will help students have a better understating of the network protocol layers, another important aspect of computer networks. Like in my other classes, I have used the labs along with weekly quizzes to ensure that students kept up with the lecture material and were engaged in the class.

As I look ahead, I see scope for improvement. While I received good reviews from the students on a whole, I notice that students mentioned that the course was sometimes at a fast pace. I recognize that the desire to cover a wide range of aspects in the field of computer networks and the combination of lectures and labs can be overwhelming for students. I’m working to moderate my teaching pace, balancing my desire to cover the broad range of important topics in this subject with students’ ability to pick up new material in the limited time available.