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**Teaching Observations for Mr. Barry Peddycord III**

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**Overview**

Mr. Peddycord is participating in *Preparing the Professoriate* during the 2013-2014 academic year. During the Fall 2013 semester, we co-taught CSC230, a third semester course in C programming and command line tools. For the Spring 2014 semester, Mr. Peddycord is a co-instructor of record for his own section of CSC230 under my supervision.

I observed Mr. Peddycord at the beginning of the Fall 2013 semester for the first several weeks. I formally observed Mr. Peddycord on November 26, 2013 (on Performance Optimization), January 24, 2014 (on C Expressions), and April 10, 2014 (on Security). My observations will discuss his growth as an instructor. I am evaluating him using the standard peer evaluation categories for the Department of Computer Science faculty.

**Lecture Organization**

Mr. Peddycord's lectures are inherited, but he modifies the information to support his style of teaching. The materials are well organized and support the individual lecture topic(s) and the overall course learning outcomes.

**Relevance of Lecture Content and Clarify of Lecture Details**

Mr. Peddycord covers the core lecture materials and where possible incorporates details about how materials would be used in practice or interesting details about the materials that go deeper than what is required by the learning outcomes. For example, the C Expressions lecture contains material that is familiar to students from earlier coursework. Mr. Peddycord explained that while some of the material is a review, the lecture provides the opportunity for more depth on the topic than could be covered in earlier coursework. He also does an excellent job of tying current materials back to previous materials, which allows for connections to prior knowledge. During the Performance Optimization lecture he referred back to an earlier optimization example from a lecture I gave several weeks earlier in the class. The security lecture is one of Mr. Peddycord's best lectures since he is very familiar with the materials due to prior research in that area. He was able to provide excellent explanations and he even discussed the recent Heartbleed vulnerability in OpenSSL and tied the vulnerability to the lecture materials.

**Use of Examples and Exercises**

The CSC230 course already has a large set of example code that illustrates details about lecture materials. Mr. Peddycord has utilized these resources in his own lectures to demonstrate code to students. He has also contributed other examples to the course. When needed, he will work new examples that are prompted by questions from the class. This provides students the opportunity to

observe how the instructor breaks down problems.

Mr. Peddycord has innovated examples with the Security lecture. In the Fall 2013 offering of the course, he introduced two in-class examples where students were required to exploit vulnerable software. The first example required students to log in to a small program with a correct password when only provided the executable. The second example provided source code, with the password removed, and students were asked to exploit a buffer overflow and change a function pointer. The lecture provided details that could help students exploit these programs, and the exercises, at the end of the lecture, provided an excellent challenge for the students. He continued his use of the examples in his Spring 2014 offering of the course, and they were well received by the students. I also used the security exercises in my section of CSC230.

### **Level of Interest**

Students tend to pay attention when Mr. Peddycord is lecturing. This is sometimes difficult since the course structure for the submission of exercises requires that students have laptops. That makes it very easy for students to do other things during class time. However, during my observations I have noticed that students tend to have the lecture slides up and will typically have a terminal window open so they can look at code samples. Even during the lecture on C Expressions, which is mostly review for students, I noted that most of the class was actively engaged in the materials. Students were very excited to exploit the vulnerable code in the Security lecture.

### **Instructor Enthusiasm**

Mr. Peddycord is very enthusiastic! He really enjoys the materials and sharing his knowledge with the students.

### **Legibility of Writing**

Mr. Peddycord's writing is legible and he's able to convey the appropriate course materials when he does write, either on the board or a document camera.

### **Use of Technology and Visual Aids**

At the start of the Fall 2013 semester, Mr. Peddycord struggled a bit with finding the appropriate technology combination that works for him. There were several experiments with various combinations of laptop, laptop operating system, and computer at the desk. I think he has finally settled onto a combination of technology that works for him, which helps with the flow of the class.

The slides for the course were created in PowerPoint, but Mr. Peddycord typically uses OpenOffice. There can be some problems with how the slides are displayed between the two systems. Most of the time, the differences aren't a problem, but a bit more review of how the presentation looks would allow for customization of the slides for his personal system.

Where appropriate, Mr. Peddycord takes advantage of the whiteboard and document camera to draw pictures and illustrate examples. Pictures are especially important when discussing memory layout of variables and arrays. He has found a nice lecture flow where he utilizes the document camera to write notes and then switches to Power Point slides as appropriate. He scans in his document camera notes to post on the course website for students to review.

### **Clarity of Speech**

Mr. Peddycord tends to speak fast, but clearly. When excited about materials, his words speed up. I've not observed or heard any major or consistent complaints about the speed of lecture.

Mr. Peddycord and I have discussed a verbal habit of asking “Right?” at the end of statements. He is actively working on removing the phrase from his lecture vocabulary. By the security lecture at the end of Spring 2014, this verbal habit was removed.

There are a few times where Mr. Peddycord is very informal with the class. As a graduate student, this mode of instruction currently works for him, but I do encourage a bit more formality as the semester and his career progresses. There was a mention of this in the course evaluations from the Fall 2013 semester.

#### **Instructor Eye Contact with Class**

Mr. Peddycord does a good job of interacting with the class. In the Fall 2013 semester, he tended to engage most with the first three rows of the classroom. That particular class had many very eager students that would actively participate and ask questions during class and while the class was engaged in exercises. With a new class this spring, he is improving on engagement with the full class though I would recommend actively checking in with students in the back of the class during exercises to fully engage them in the activity. During the security lecture, I did note that he tended to talk to the side of the room with the screen. That tended to be the side with the most engaged students.

#### **Encouragement of Student Interaction**

CSC230 has several in-class exercises during every lecture period. The exercises require students to answer questions related to materials recently covered in lecture and submit their responses via a Google form. Mr. Peddycord is continuing use of these exercises in his class this spring, which allows students to actively engage in the materials. Mr. Peddycord can see all submitted answers and use the feedback to adjust course materials if needed.

Mr. Peddycord also encourages students to engage during class. When attending the C Expressions lecture, three weeks into the spring semester, I was very pleased to see an active exchange related to why the order of operations are the way they are. While the discussion was eventually halted since it was ultimately outside the scope of the lecture, I observed that students are encouraged and willing to engage with the materials.

#### **Summary**

Mr. Peddycord is an effective instructor who cares about student engagement in and learning of course materials. He is very enthusiastic about the materials in CSC230 and wants to have his students share that enthusiasm. I have seen Mr. Peddycord improve from the fall semester and mature as an instructor. Mr. Peddycord has found a lecture delivery style that works for him and has effectively taught students in CSC230 during the Spring 2014 semester. I expect that he will continue to grow as an instructor and I expect great things, including many teaching awards, as he finishes his degree and enters an academic position!



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