



DIVISION OF TEACHING EXCELLENCE AND INNOVATION

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SELF-REFLECTION FORM

Complete this form after each time you teach; bring it with you to the Post-Observation meeting you have with your observer(s). Upload the completed form to the Canvas website.

Your Name:	Aftab Hussain
Date:	4, November 2019
Name of Course & Number:	Computer Systems Architecture, CS250P
Approximate enrollment in your section:	32
Class level (lower- or upper-division; requirement for major; general education, etc.)	Graduate
Course Outcomes (usually found on the instructor's syllabus):	<p>The course teaches the architecture of complex modern microprocessors. It focuses on the evolution of computer architecture and the factors influencing the design of hardware and software elements of computer systems.</p> <p>After doing the course, students are expected to be able to determine how instructions are executed in different pipeline systems – how they are scheduled, what challenges or hazards there exists in executing multiple inter-dependent instructions in parallel, etc. By the end of the course, students would also be expected to know how to assess performance of different pipeline setups and the efficiency of executing different (but equivalent) series of instructions by calculating different performance metrics. They would also be expected to know the syntax of assembly level programming languages such as the MIPS instruction set.</p>

What were the learning objectives for the class on which you are reflecting?

Test and review the fundamentals of some of the topics that were being taught in the course. In this class, I tested their fundamentals on compiler-based instruction-level parallelism (ILP). I also wanted to give them a partial mock experience of how their midterm (which is

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scheduled to take place in a week and a half from this class) was going to be – in particular, the open book and limited internet accessibility aspects.

Briefly describe how you structured the course. (For example: 15 min. of lecture; 20 min. small group activity, etc.)

30 min team quiz on Compiler based instruction-level-parallelism, followed by a 20 min discussion on the answers. The final 15 mins of the quiz was open book, open laptops (where they could only access all links in the instructor's and my websites). The class was split into 8 teams with 3-5 members in each team. During the discussion of the answers, I asked the teams to grade each others' answer sheets.

What do you feel went particularly well in this session? Why do you feel that it did?

I think the part when we were discussing the solutions went particularly well. It helped clarify students doubts in answering questions, and also gave me the opportunity to explain to them how to write good answers – for instance, there was a question where two teams had got two different answers. At that point, I told those students that that is possible, however, it depends on what assumptions they took, hence allowing them to gain a greater insight into the problem. In addition, I was able to give them a useful exam tip during that exchange, where I told them to clearly write what assumptions they are making while answering such questions in their upcoming midterm.

If you had the lesson to teach over again, how might you change it and why might you change it?

As also suggested by my observer, I would include less questions in the quiz, so that I would have more time to go over the solutions more deeply after the quiz. I would also liked to listen to them more closely while they were working, as that would have given me a better assessment of their understanding of the concepts. Also, I gave the quiz instructions verbally this time. In future, I think it would be more efficient to put instructions on the white board/projection screen.

What kinds of responses were you getting from the students during the lesson? How might you alter student participation?

The students seemed to be pretty engaged, in their quiz, and attentive while I was discussing the solutions. During the quiz, they were discussing the problems with each other, reasoning about technical aspects of the questions, which I really wanted them to do. They also asked me questions during the quiz, in case they found anything confusing to understand. To further increase their involvement, I could try to interact with the students during their team

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quiz, by asking them questions, on how they are doing, what difficulties they are facing. Although that may reduce the testing element of the quiz, it would give me a greater insight into each team member's involvement, enthusiasm, and understanding of the concepts, and also encourage all members of the team to be involved further.

What indicated to you that the students were learning what you wanted them to learn?

Their responsiveness during the part of the class when I was doing the solutions. My discussion of the solutions cleared many of the students' doubts, and this became evident to me when they were asking me questions during the solutions discussion, and I was answering their questions. Their consequent acknowledgements of understanding what I wanted to explain to them confirmed the fulfillment of my objective for this class, which was to give them review of fundamental concepts in compiler-based ILP.