

## Master Teacher Observation Form

Instructor: Jim Drachenberg

Observer: Lori Houghtalen

Class and date of observation: Engineering Physics I Lab, October 23, 2019

Please use this document as a note-taking guide for the observation. Offer feedback on relevant items only.

### Teaching Qualities

- Positive environment: students receive targeted and specific praise
- Enthusiasm for materials: instructor's excitement is contagious and real world examples illustrate the material's importance
- Engages students: instructor actively seeks out students in need of assistance, checks for understanding, ensures that everyone is on task and understands material
- Organized: instructor clearly communicates lesson objective and conducts material in organized manner
- Content knowledge: instructor knows the material and conveys the material in an understandable way

### Notes from Observation:

*Dr. Drachenberg started the class period by relating the topic of the lab with what the students had just seen in lecture. The explicit connection between learning goals for the lab and the lecture is meaningful, and a testament to Jim's work to overhaul this particular lab as well as his experience in teaching.*

*Jim spent just a few minutes introducing the goals for the lab; I noticed and commend that he was able to discuss the major concepts in play in a very concise manner, and did not get bogged down into technical details. His brevity and style of delivery served to meet the students' needs of organizing for work and understanding the overall goals, while not requiring their attention so long that they lost interest.*

*Throughout the lab I watched (and sometimes participated as) Jim answered student questions. He was clearly comfortable with the content, able to answer questions with ease and in a manner that encouraged but did not "spoon-feed" the students in their work. I admire that he practiced good listening before answering, rather than jumping to conclusions about the crux of a student question, as I find myself doing too often.*

*When Jim wasn't actively answering questions the students were bringing to him, he was moving from group to group to ask them questions about their process and their plan. I saw him engage well one-on-one as well as with groups.*

## **Student Centered Learning**

- Individualized instruction: instructor senses individual student needs and responds appropriately
- Feedback provided: instructor uses class time to provide informative critique of major assignments and students understand rationale for grades
- Respect for students: instructor speaks respectfully to students and asks questions and interacts with students professionally
- Approachable and open: students seek the instructor out for further information and insights
- Active listening: instructor actively listens to questions and answers in a way that draws more students into the discussion
- Rapport with students: instructor works to learn about individual students and engages them personally
- Values student input: instructor seeks information about the class/lesson/material from a wide variety of students

### **Notes from Observation:**

*All of Dr. Drachenbergs interactions with students displayed the utmost respect for them as individuals. I have not seen Jim teach before, but it was evident in the way students approached him that they are comfortable and confident in his classroom. And the way the lab time was structured, most of the instruction that occurred was individualized, at least at the group level, as it was delivered as a response to student questions or instructor response to his observations of group progress.*

*One of the things I admired about the way Jim ran the lab was how self-sufficient he expected the students to be with respect to obtaining equipment and setting up their own experiment. The lab is located adjacent to equipment storage areas, and students are expected to locate their own equipment (and ostensibly return it to the storage area at the end, although I was not present at the end of lab to observe this.) I have taught this lab previously, and it was customary at that time for the lab to be set up and ready for each group when they arrived. While helpful from a time management perspective, it robs students of the opportunity to learn and even be creative in approaching this important aspect of experimental work. This no doubt requires more effort on behalf of the instructional team, as equipment must be organized and easily discoverable by the students, and likely re-organized as students I am sure routinely put things away in the wrong place. I enjoyed watching as the students listened to Jim's brief overview, then set about their work. Students moved freely between the lab classroom and the storage*

*areas. A side benefit of the physical movement required to “shop for” the equipment needed was that they were routinely interacting with each other. They would check out other group’s setups as they walked by, they would take advantage of passing by the instructor to ask a question, etc.*

## **Classroom Environment**

- Facilitates deep learning: discussion moves beyond the text
- Clear goals established: objectives outlined, clear behavioral expectations
- Real world value shown: instructor relates material to both real world practice and experiences so students connect theory with practice
- Interactive class: instructor facilitates the class, but students are actively engaged with material
- Assessment information provided: instructor provides clear information about assessment format and what will be assessed

### **Notes from Observation:**

*By design, the lab was highly interactive. I enjoyed the “hum” of the class as they went about their work. It was noteworthy to me how engaged the students were; I did not see any student that was consistently “checked out” and relying on their group mates to carry them through. It is commendable that Jim has established a classroom environment that coaxes all students to authentically participate. Even in a sophomore-level class the week after homecoming. (As I recall, at least 5 students in the class were clearly actively pledging, based on their wardrobe.) I noticed that Jim was intentional about spreading his attention around the room, but the student response to this was accepting and receptive rather than a “snap to attention” as he walks near which I often experience in my own classroom.*