

Master Teacher Observation Form

Instructor: Jim Drachenberg

Observer: Kendra Jernigan

Class and date of observation: Engineering and Physics II, Wednesday, November 6th

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
 - As lab progressed, visited with lab groups and encouraged their experimental efforts. Asked probing questions to encourage students to guide students to solutions.
- Enthusiasm for materials: instructor's excitement is contagious and real world examples illustrate the material's importance
 - Evidently passionate about physics and its application. Provided concrete examples or guidance on how to collect required data.
- Engages students: instructor actively seeks out students in need of assistance, checks for understanding, ensures that everyone is on task and understands material
 - One idea: You seemed to do a lot of checking on the lab groups in the main area, but there was a group or two in an adjacent room that were not visited as frequently. Maybe if a group goes to another room, poke your head in on them a little more often.
- 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

Student Centered Learning

- Individualized instruction: instructor senses individual student needs and responds appropriately
 - Great explanations to the students who asked for help. You have a very good grasp of what information to give them so that they can work through to the answer themselves.
- 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
 - Treated all the students as fellow scientists and discussed experimental results on that level.
- 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
 - You have an easy-going rapport built up with your students. Asking them informed questions about their interests and lives.
- Values student input: instructor seeks information about the class/lesson/material from a wide variety of students
 - An idea: You might include a question like the following on the students' lab worksheets. It might be helpful for you as you continue to adapt the lab. And if you could even make it an ungraded portion, if you want to lower the stakes on giving constructive criticism.
 - What do you think worked well in today's lab set up?
 - What do you think could be improved in today's lab set up?
 - What other materials might have been helpful to accomplish your goals today?

Classroom Environment

- Facilitates deep learning: discussion moves beyond the text
- Clear goals established: objectives outlined, clear behavioral expectations
 - I love how you give the lab groups clear guidelines about what they need to do to accomplish their experimental outcomes. At the same time, you give them so much freedom to accomplish those outcomes.
- Real world value shown: instructor relates material to both real world practice and experiences so students connect theory with practice
 - An idea: give the students a few more specific examples of why the experimental outcomes and relationships matter. For example, why would an engineer need to care about angular momentum in a consulting project. Or an example of when it was not considered and things went poorly.
 - Bear in mind, you might keep doing that in lecture or even in the lab itself and I did not have the frame of reference to keep track.
- Interactive class: instructor facilitates the class, but students are actively engaged with material
 - I think that this lab format works really well. There are enough available resources and guidance that students can feel at ease tinkering or struggling to work through things. Students had to problem solve, but it did not seem overly frustrating or onerous.
 - The students also were motivated and eager to learn.
- Assessment information provided: instructor provides clear information about assessment format and what will be assessed