

MIT OpenCourseWare
<http://ocw.mit.edu>

5.95J / 6.982J / 7.59J / 8.395J / 18.094J Teaching College-Level Science and Engineering
Spring 2009

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.

Questions from Lecture 1

In reality

What about grading? How would you actually implement your grading policy as an assistant prof in a traditional department?

You've obviously done this many times before. As someone who needs to figure out a logical order for the material, in addition to balancing prep time and research, how do we juggle all this in addition to simply focusing on style?

How does this work in the real world? (Where your time is limited and there is sometimes a lot of material to cover?)

Syllabus/Logistics

Any exams, psets? How are we being evaluated?

Does it matter which subject number we are assigned for?

Break after 1 hour?

Biology examples?

Interactive teaching

How do you teach a class interactively if you have **a lot** of material to get through?

If a demo is not possible for a concept, is it worth using the same model if the 'demo' is a medium-length derivation?

How to pace lectures? Too many demos means less material – advanced students would be bored.

Can these principles be applied to upper-level/graduate classes?

What are the risks related to using discussion-based teaching? Are there situations where this is not suitable?

How to deal with classes where someone dominates a discussion or the class does not like to participate?

When do you choose to do these things? e.g. You said that sometimes you don't give time for self-discussion. . . Why? Time constraints? Is it for follow-up discussions (like the v_4/v_1 example?)

You did not give much background as to what the exercise was going to be. Is that because it is a teaching example? Because you wanted us to think broader? When would it be appropriate to give more background to the example?

Regarding blackboard – is it different than using the whiteboard?

How do you get students to talk when you ask a question and they do not answer?

How do you cope with the variety of confidence levels among students?

We made a list of what happened and why it was done that way. It would be great to see more of them from your perspective.

What about the left brain? Surely humor and demos cannot take you all the way.

General

What is moral choice in teaching?

Wasn't Anne Sullivan Helen Keller's teacher (not Alexander Graham Bell)?

How does big chalk increase SNR?

How to project confidence? Fake it till you make it?

How to get students to construct meaning from a lesson if, as you said, meaning cannot be transmitted?

Using readings

How to integrate reading material? What sorts of material should be covered in class versus reading – how to pick readings? How much?

Will we practice teaching in class or will you be at the front the whole time?

Drag

You wrote that the drag force was related to ρ , v , A , and v . It seemed like that was pulled out of nowhere.

In deriving the answer to the four cones versus one cone problem, how did v change when using the $F = \rho A v^2$ result?

Becoming a better teacher

How long did it take you to become such a good teacher?

If I'm not actually a TA, what can I do to practice becoming a better teacher?