LORNA GIBSON: So really the way I set up the lectures is I write out notes for myself of what I want to cover, and the notes are pretty detailed. And in the past I always just had the notes for me. And even though they were reasonably neat and I could read them, I didn't hand them out to the students.

But because I've turned my fall course into an MITx course and I want to make the lecture notes available for that, when I was doing that course for MITx I made really nice notes. And a friend of mine who lectures, I was asking her how she did it, and she said she actually goes and measures the chalkboard, and she measures the aspect ratio, how tall to wide the chalkboard is. And then she sets up her notes so that they're the same aspect ratio, and she plans out exactly where she's going to put everything on the board on her notes.

And so I started doing that. And when I'm doing the lecture I put it all on the board, and I find a lot of students-- even though I hand the notes out now-- they like to write their own notes. And I think it helps them pay attention in class and helps them kind of focus on the material.

So another thing I do in the lectures, when I first started lecturing and for a long time I just focused on the engineering, you know, on the equations, this is the derivation, this is an example, this is how you use this. And it was all just about kind of the engineering of whatever I was working on. And I found over the last few years, actually in both courses, in the fall one on mechanical behavior and in the spring course on cellular solids, I look for more interesting examples and stories, kind of stories about the people who discovered some of the principles that we talk about.

I tell them stories about engineering situations that came up and there was some interesting thing happened. And the students love it. I mean, they really like having the kind of hard core mechanics broken up with some sort of stories. So I do that a lot more now than I used to do. So probably most lecturers have some kind of interesting example or historical thing that I talk about.

So for instance, when I teach the fall course, the mechanical behavior materials, one of the first things we talk about is stress. So stress is a force per unit area. If I take this piece a wood and I pull on it like this I'm pulling on it with a force that goes out like this. Stress is just that force divided by that area. And the unit of stress in the SI system is called the Pascal. And it's named after Blaise Pascal who's a French mathematician.

And a couple of years ago I was in France for a conference and I was in a little town called Clermont-Ferrand, which is in the middle of France. It's a pretty little town. And I'm just walking around one day kind of seeing the square and the cathedral and all this stuff, and I see there is sign, there's like Pascal something or another. And this was apparently the site of Blaise Pascal's house. And right next door to it is Cafe Pascal. So of course, I have to take a photograph of Cafe Pascal. And in this other course, when we get to the bit about stress and I tell them about the Pascal I show them the picture of the Cafe Pascal.

And the other amusing thing that they kind of get a kick out of because of Boston, you know how in Boston there's the Freedom Trail and there's a red line goes around all these historical sites all this colonial and revolutionary stuff around Boston. It's kind of cool, all the tourists to it. Well in Clermont-Ferrand there's a Pascal Trail. And there's little metal medallions of the portrait of Blaise Pascal put in the sidewalk and you can walk around Clermont-Ferrand doing the Pascal Trail. So I kind of keep an eye out for stuff like that and I put that into the course now, and I never used to do that kind of stuff.

I have a picture from the Library of Congress, which I went to just for fun a while ago. And one of the main buildings is this old, beautiful historical building for the Library of Congress. And they have a marble staircase that goes up the middle. And the staircase has all these little cherubs. And there's an agriculture cherub and he's holding a sheaf of wheat. And there's a wine cherub and he's holding a little thing of grapes. Well, it turns out there's a mechanics cherub and he's holding a gear. So at the end of the first lecture I show them the mechanic's cherub with the gear. So there's these cute little things. So I just keep an eye out for these cute little things.

And last fall, this past fall, one of the students came up at the end of the first lecture and he said, I really like art. And he says, is there going to be more art in the class? And I'm like, not usually. This has kind of exhausted my art in mechanics. And I said, but I'll keep an eye out. And through the term there actually were different things that I saw that had to do with mechanics and art I showed the class.

So one of them was at the Peabody Essex Museum this fall there's been and display of the mobile sculptures of Alexander Calder. And they also made these very large, I think they're called stabile sculptures, as well. The big sail at MIT is one of his sculptures. And these mobiles are actually a really nice example of free body diagrams in mechanics and balancing the forces.

So anyway, I got a picture of one of his mobiles and I went up to the exhibit. And when I was at the exhibit I found that he did a degree in mechanical engineering. He actually was a mechanical engineer. And so the students were very, very tickled by the sculpture, the fact that he studied engineering. So anyway, I look out for stuff like that.