Syllabus Quiz

Objectives

To generate discussion about the course format, promote student behaviors that to lead to maximal learning, and ensure that students have read the syllabus. In particular, my goals are:

- Setting norms in the class about the importance of class discussion
- Establishing the dry particulars of the course
- Highlighting the way that your course is special and different from other courses they might have experienced

Activities

Students are instructed to work together to complete the quiz (see below) for homework. One quiz is turned in (for points) per several students. Prior to collecting the quizzes, the instructor holds a whole-class discussion about the answers. I want them to develop as collaborative, agentic learners. Thus, I turn the discussion to make them decide about what is best behavior in the questions about cheating and student behavior, and I don't tell them what I think.

Effectiveness

It's quite effective at generating discussion and ensuring that students read the syllabus. It's part of a larger program to promote productive epistemology of science and student agency for learning, and that program works quite well.

Students usually start physics classes unwilling to speak to each other. The structure of this quiz helps them feel like they have something to say and resources to look at that don't depend on their prior physics courses (great for classes with diverse preparation!). It sometimes takes a little prompting to get them to talk to each other while doing the quiz, but by the time we get to discussion they're much less reticent.

The questions about collaboration feed in to students' fears and covert behaviors about plagiarism and looking things up on the internet. Students are often shocked to learn that I encourage them to use outside resources, and somewhat uncomfortable with the fact that I know about (and permit use of) the published solution guides to the book problems. Our discussion about academic honesty is a lot more robust than the usual "don't plagiarize!" discussion, and I've never (yet!) had academic honesty problems in classes where I use this quiz.

The questions at the end about Stu and Dent doing poorly emphasize to students that they are responsible for their own learning, and that there are a lot of institutional and course resources to help. I reinforce these ideas when students come to me with problems by asking who they work with and which online sources they're using.

Author

Eleanor Sayre, Kansas State University. You can contact Ellie with questions at le@zaposa.com

Materials & Resources

Handout (below)

Classroom Context

Introductory science course; upper-level science course.

Time Requirement

10 minutes

About this Project

This is one of a set of materials compiled for instructors to draw upon in order to frame non-traditional modes of classroom teaching for their students. Our hope is that these materials can help reduce any student resistance to such techniques.

Compiled by Stephanie Chasteen (University of Colorado Boulder Science Education Initiative): Stephanie.Chasteen@Colorado.EDU.

Other materials available online at www.colorado.edu/sei/fac-resources

Syllabus Quiz

1. Where is Dr. Sayre's office?

2. When are office hours?

3. When is homework due?

4. Stu and Dent are working on their homework together. Is that ok?

5. Stu finds a similar problem, with solution, on the internet. Dent says, "Its ok to look at it, but we have to put it away when we write our homework." Stu says, "No, we can copy it and just cite it." Stu and Dent are both partly right and partly wrong. What should they do?

Editors' Note: I have struggled myself with the answer to this question. While students need to decide what is best behavior, and stick by that decision, here is an answer that I have come up with for myself so that I can decide what I think is best – SC

It depends on what you're trying to accomplish with solving this problem. Do you want to get the right answer and move on? In that case, Stu's answer ("we can copy it and cite it") is good enough. Let's be honest: sometimes you don't have enough time to really engage carefully with every problem, and answers = points. Since you're using someone else's ideas, you absolutely need to cite them, but as long as you cite them there's nothing unethical and you'll still get full credit. Incidentally, that's the problem with Dent's answer ("just put it away when we write our homework"): he's proposing that you use someone else's ideas to guide your thinking, but not give them credit, which isn't honest.

In a deeper sense, however, Dent's got a good idea going: Stu's strategy of getting more points for less time is great in the short term, but it doesn't really help him understand the material very well. If Stu uses this strategy a lot, he will miss a lot of the subtler points of what we're trying to learn in here: specific physics content, mathematics that support it, and also big fundamental strategies of problem solving. The work in this class builds on itself, so shortchanging yourself now will set you up for pain later. That's a problem for this class, for later classes in this major, and more generally in Stu's future professional career. Additionally, the quizzes and tests in this course will closely mirror the homework. Don't fool yourself that you'll be do well by turning in homework you don't understand and then "catching up" come exam time.

Looking up how other people solve similar problems is an important skill for you to learn in physics, and it only gets more important as you move into harder classes and research. But if that's your only strategy for solving problems in this class -- or even just one of your more common strategies -- then you're going to do badly in this course and you're likely to do worse in future courses.

6. Stu and Dent do not have their homework done on time. On a piece of paper, Stu writes: "I forgot my homework in my dorm room. I would like to turn it in after class, before 3:30. Stu" Dent writes an email which arrives at 2pm:"Hi Dr. Sayre, I have the flu and won't be in class. Can I have an extension on the homework? - Dent" Should Stu and/or Dent get extensions? Why or why not? What could they have done better? What did they do that was right?

7. It's March, and Stu feels really lost in this course. He missed a week of class, and he did really poorly on this week's homework. What can Stu do so that he does not fail the upcoming exam?

8. What can Stu do to bring up his grade?

9. Dent skipped class on Tuesday and didn't get the assignment. Where can Dent find out what the homework is? List at least three options.