Teaching Arts Luncheon
November 5, 2010
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Discussion Topics Inspired by 1st Annual New England Conference for Student Success

1. Engaging Students Using Technology
   • Clickers – focus on learning
   • Class Blog – fosters interaction
   • Class Wiki – helps solve group scheduling problems
   • Podcasts – lectures to go, help students study

Which of these do you use? Why/Why not? How do you know you are achieving your objectives?

2. Successful First-Year Teaching
   • Challenges and Opportunities
   • Importance of First Class
   • Attendance
   • Power of Study Groups
   • Importance of Feedback
   • Help Students Find and Use Assistance
   • Summary – learning and classroom engagement occurs when
     o we use a variety of teaching methods
     o we create challenging assignments
     o we encourage students to speak in class
     o we use class time productively
     o students are encouraged to work together
     o homework and class discussion are meaningful

How many of these strategies are you using? What new strategy would you like to try to engage first-year students?
3. John Gardner’s Keynote Address – Triggers for Improving Student Success
   • What is needed is “challenge and support” and more of each! Engagement is about raising expectations and achieving greater time on task.
   • We must pursue educational excellence using aspirational standards.
   • Re-examine policies that at one time made eminent good sense but now may have outlived their usefulness – do a policy audit and focus on what you can control.
   • One person can make a huge difference.

How can we address these points?

Idea from UMass Center for Teaching and Learning

• Sponsor a regular faculty writing event. Invite faculty to gather at one location to spend time on scholarly writing. Provide coffee and snacks, then let people write!

Would you be interested in something like this?

Upcoming Teaching and Learning Conferences

• AAC&U Creativity, Inquiry, and Discovery: Undergraduate Research In and Across the Disciplines – November 11-12, Durham, NC
• NEASC Annual Meeting “Demanding Excellence, Honoring Difference” – December 1-3, Boston
• AAC&U Global Positioning: Essential Learning, Student Success, and the Currency of U.S. Degrees – January 26-29, San Francisco
• AAC&U General Education and Assessment 3.0: Next-Level Practices Now – March 3-5, Chicago
• Engaged STEM Learning: From Promising to Pervasive Practices – March 24-26, Miami
• 2011 Teaching Professor Conference – May 20-22, Atlanta
• CHAS Science Faculty Forum “Applications of the Science of Teaching and Learning in the Classroom” – June 3, Smith
**Joyce Fortune – Physics Prelab Ideas from Gordon Conference**

**PreLab: questions to answer before doing the lab**  
– used in Intro Physics 1

Name: _______________________________________
Date: _______________________________________
Lab Section: ___________________________________
Lab Title: ___________________________________

*First, carefully read the description of the lab* in your lab manual. You may need to read it more than once to get a good grasp of it.

*Next, answer the following questions about the lab:*

1. What are you supposed to be learning about by doing the lab?

   The goal of this lab is to help you learn about a scientific concept (principle, theory, law) or about a laboratory procedure. Based on your reading of the lab materials, identify the scientific concept and/or lab procedure you are supposed to be learning about. Then write down what you know about the concept or procedure of the lab based on information from the lab manual, textbook, class notes, handouts, etc.

2. Describe the specific actions you are being asked to perform in the lab, such as observe, analyze, determine, etc.

3. Briefly describe how what you are being asked to do in the lab (the objectives) will help you learn about the scientific concept(s) or laboratory procedure(s). In other words, show the link between your response to question 2 (what you will do in the lab) to your response to question 1 (what you are supposed to be learning by doing the lab).

4. *What are some questions you have about the lab?* Look for aspects of the lab--related to the scientific concept, procedure, or anything else—that you don't understand or would like to know more about. Turn these into a list of questions. These questions provide a focus of inquiry for the lab.
PreLab: questions to answer before doing the lab
– used in Intro Physics 2

Name: _______________________________________
Date: ________________________________________
Lab Section:___________________________________
Lab Title: _____________________________________

First, carefully read the description of the lab in your lab manual. You may need to read it more than once to get a good grasp of it.

Next, answer the following questions about the lab:

1. What are you supposed to be learning about by doing the lab?

The goal of this lab is to help you learn about a scientific concept (principle, theory, law) or about a laboratory procedure. Based on your reading of the lab materials, identify the scientific concept and/or lab procedure you are supposed to be learning about. Then write down what you know about the concept or procedure of the lab based on information from the lab manual, textbook, class notes, handouts, etc.

2. Describe the specific actions you are being asked to perform in the lab, such as observe, analyze, determine, etc.

3. Briefly describe how what you are being asked to do in the lab (the objectives) will help you learn about the scientific concept(s) or laboratory procedure(s). In other words, show the link between your response to question 2 (what you will do in the lab) to your response to question 1 (what you are supposed to be learning by doing the lab).

4. If you measure the force between two point charges as a function of the distance between them, sketch the result you would expect. You don’t need numbers, but you should correctly show the shape of the plots.
   a) On a plot of force vs. distance.
   b) On a plot of force vs. 1/(distance)²
   c) On a plot of ln(force) vs. ln(distance)

5. What are some questions you have about the lab? Look for aspects of the lab—related to the scientific concept, procedure, or anything else—that you don’t understand or would like to know more
about. Turn these into a list of questions. These questions provide a focus of inquiry for the lab.