



Well, JSU is finally getting a bit green. You can see that we can recycle all paper with the new shredder boxes. You do NOT have to remove staples, paper clips or even larger clips. The one thing that is NOT allowed is old batteries.

I finished teaching my physics students this week. Overall they did well. However, to compensate for the compressed time, we have 60 contact hours for the course. This is 2/3 more hours than the typical 36 contact hours in a fall or spring semester. The same extra contact hours are used in all the summer chemistry and physics courses. I sometimes worry that this "hand holding" is enabling our students to avoid taking ownership of their learning. On the other hand, I do not think it is wise to teach a summer term course with a large fraction of the students failing.

Enjoy the remaining month of summer. . .
-- Lou

Department News

New Shredding Bin (updated with a broader use)

In the photocopy room, under the mini-fridge is a bin from Cintas. There is a slot opening on the bin. Please put any of your paper into the bin. The paper will be shredded and recycled. Even if the paper does not have sensitive information on it, you can put it into the bin and it will get recycled! You can put in colored paper, glossy paper, magazines and even books. The first pick up is supposed to be 1 August and then every two weeks. If you have an office full of paper just waiting for recycling, let Tracy know and we can get extra pick-ups. We will keep the old shredder around for instances when the bin is full and you have paper than needs to be shredded.

Academic Majors and Minors College Fair

This is sort of a "Preview Day" for existing JSU students to pick a major. The event is run very much like Preview Day, except it is visited by existing students and no parents. It will be 1:30 to 3:30 on Thursday, 20 September in the Theron Montgomery Auditorium. Please let Tracy know if you can help to "man" our table and think of something eye-catching to put on the table.

End of term

Tuesday, 31 July is the last day of term for June 8 week term and June 6 week term. However, Wednesday 1 August is the last day for July 4 week term. Grades are due at 1:15 the day after the last day of term. Please be certain to get grades posted on-time.

University News

Summer Graduation, Friday 10 August

If you can attend graduation on 10 August, please let Tracy know. Graduation ceremonies start at 7:30. The faculty members gather in the Stadium Club with the guest of honor. It is one of the few all-campus events that we have. If you have not attended in a while, you are encouraged to sign up.

Student Opportunities

Internships for Chemistry Students

I received a phone call and the email, below. I am not certain about the quality of the work, but some students might be interested. . . .

Dear Department of Chemistry Students,

If you're searching for a paid internship or scholarships, be sure to check out AfterCollege. [<http://www.aftercollege.com/>] This customized portal has a large network of employers specifically looking to hire members and recent graduates with your major at your school, and there is no cost for you to use this resource.

[Want a paid internship?](#) Access our internship network to gain experience while you're in school.

[Interested in scholarships?](#) There are new ones available every quarter.

[Ready to launch your career?](#) Access your customized Career Network featuring jobs from employers looking for you.

We know you'll find great opportunities through AfterCollege, and we encourage you to join today.

Sincerely,

Elena Romanyuk AfterCollege University Relations Team

Top Ten List

The Top 10 Rules for Good Teaching

Source: <http://users.ece.utexas.edu/~patt/Ten.commandments/>

Author:

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Professor of Electrical and Computer Engineering
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The University of Texas at Austin

- 1) **Know the material:** The purpose of teaching is for students to learn. To help a

student who is having trouble understanding the material, you need to know (a) where the student is having a problem, and (b) how to explain it differently the second time. Both require that you know deeply the material you are teaching. It is not good enough to be "one page ahead" of the class, or to have memorized the material well enough to write it on the blackboard without making any mistakes.

2) Want to teach: When you walk into a classroom, you should want to be there. Very little is as infectious to the student as an instructor who is genuinely happy to be there. The students can tell the difference. If the instructor is excited about the course, the student is likely to be also.

3) Genuinely respect your students and show it: You are in the classroom for the benefit of the students, not vice-versa. Your ability to help them understand concepts that they currently do not understand is enhanced enormously if you connect with them. No one wants to be treated like a dummy or talked down to. Connecting means giving them credit for having a brain, willing to use it and caring enough to do what it takes to get it. AND, conveying that -- not verbally, but through your body language. That means respecting them.

4) Set the bar high; students will measure up: Good students are there to learn and they know it won't happen automatically. My experience is that if you set the bar high, and do NOT waste the students' time with tedious work that serves no learning purpose, they will work as hard as they can to measure up to it. The myth that students want an easy course is just that, a myth. Some of them may complain and moan at the moment over some very tough homework. But at the end of the course, I generally am thanked profusely for setting the bar high. "Thank you, I never thought I could learn so much in one semester" is a comment I often get at the end of the course.

5) Emphasize understanding; de-emphasize memorization: Memorizing is not understanding. Unfortunately, many students have gotten by for a very long time on the basis of a sharp memory, and have never had to really think. Memorization may work for the moment, but after graduation when they are faced with new challenges, it is their ability to think and to understand that will carry the day, not their ability to memorize. I have seen too many examples of students who can memorize almost anything, yet cannot think through a simple extension of what they have memorized. I suggest they will not be prepared for what lies ahead after graduation, in work or in life.

6) Take responsibility for what is covered: Too many instructors have been lulled into this new pedagogical notion that the students should decide what gets taught in the classroom. Not in my classroom. I have been around longer, have seen techniques come and go, and because of that, I believe I know better than they what is important for them to know to be successful after they leave my course. Ergo, I decide what gets covered. I am very concerned about this fashionable notion of letting the students decide. Many students want instant gratification -- a technique they can use today, whether or not it will be useful downstream. It is up to instructors to take charge of what goes on in their classrooms.

7) Don't even try to cover the material: When one sits in the office in August and plans the syllabus for the Fall semester, optimism runs very high. The instructor often lays out the course outline, assuming that every student gets every point the first time, that every explanation is brilliant, and that no student needs to ask a question. Not too many classes into the semester reality sets in. The fact is that some days the explanations are bad. And, some days the students don't get it the first time. Ergo, if one insists on

covering the material, the only one left standing at the end of the course is the instructor (maybe). I believe the following. First, there is always far more material than can be covered adequately in a semester. BUT, only a core body of material needs to be covered. So, in August when everything is coming out roses, sure -- assume the best. But, as the semester moves along, and reality sets in, do not be afraid to stop and cover again the same point a second or third time, bringing in different perspectives and examples to get it across. Answer questions, even if it means totally blowing the schedule. That is, do not even try to cover the material. Certainly, one has to cover the core body necessary to move on to the next semester. But that usually represents half the material, or so. Anything beyond that is a bonus, and has no place in the course if the student failed to learn the core material.

8) **Encourage interruptions; don't be afraid to digress:** This is a consequence of the one just above. The point is that the reason for the course is for the student to learn. If the student is not learning, it is irrelevant how much material is being covered. Therefore encourage interruptions. It means the student is thinking. And, if the student is thinking, he/she has a chance of getting it. Digress when it seems useful. Digressions can add meaning to the understanding of a concept. Anecdotes from the instructor's experience can make the material more alive. It can provide just the twist that allows the student to get it.

9) **Don't forget those three little words:** The three little words are "I don't know." The biggest thing about a classroom that makes learning work or not work is the connection between the instructor and the students. Many of the items above relate to establishing that connection. Nothing will destroy that connection as quickly as the instructor speaking nonsense. It only takes one student in the class to know that the instructor is faking, and credibility has been lost for good. And, if the instructor loses credibility, he/she has nothing. Students will tune out. AND, it is okay to not know. The instructor cannot be expected to know everything. That is the nature of humans. Never pretend to know. Just say, "I don't know," move on, and if possible try to find out before the next class and answer the question then.

10) **Reserved for future use:** Many have observed that this last one is not a rule at all, and that therefore there are really only nine. Wrong! This tenth one is my way of saying you should make allowances for contingencies. Things will often not go as planned. Be prepared to adapt to dynamic situations, as they unfold.

Contact Details

If you have items of news or interest that you would like included in the Department of Physical and Earth Sciences newsletter, then contact **Tracy Casey** before noon on Thursdays at: tscasey@jsu.edu or phone (256) 782-5232.