# Balancing Teaching and Research

**Activity Type**
Group work and light lecture

**Time Needed**
60 min

**Purpose**
- To help graduate students learn skills to keep their research active while they teach.

**Abstract**

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|---|---|
| Discuss purpose of program and activity | 5 min |
| Flip chart paper activity | 35 min |
| Defining goals | 10 min |
| Discuss quarter's reporting requirements | 10 min |

**Supplies**
- 4 large sheets of paper, pens, tape for paper on walls,
- Draw matrix on board.
- Have a copy of best practices TAs 06, time manage matrix, research report form.
- Upload copies to webpage.

**Preparation**
- Tape up four large sheets of flip chart paper on four different walls. Make sure there is standing room available at each paper.
- Draw empty matrix on board

**In Class**
Version from: Balancing the Academic Workload: Fall 2007, Dev Bio 208, Class Session I 11-12, Sept 24

**Intro: (5min)**
"Adrienne and I set up the HHMI teaching fellows program since we believe that everyone (faculty, lecturers, grad students) will all benefit from learning and working together to create an interesting and engaging learning centered classrooms for our undergraduates. This is the 2nd year we have run this program. We believe the program was quite successful last year. We also learned a lot from last years fellows and we hope the program is even more successful this year and hope that we can count on you to provide feedback on how we can continue to improve the training programs. "

Discussions: "All of you in this room will be involved with running discussions associated with our large classes. In my classroom in Bio 93 we are striving to provide an environment in which the students are actively engaged so they can learn a variety of skills and concepts, instead of just facts. This is difficult and at best only partially successful in our large lecture halls. The discussion

sections you will be running provide the students the opportunity to practice solving problems both individually and as a team, while learning new biological terms and concepts. Student evaluations very often mention the high value they placed on discussions."

Lecturer discussion leaders: "Most of you are experienced instructors and in this small class setting you provide a conduit to ideas and knowledge that may be more accessible to students than faculty in a large class. In addition, you are in a great position to help train our future faculty who will be working in the same classes. You also get unique insights about what the students need help with and faculty can benefit from your input."

Graduate student discussion leaders, "You will be learning teaching skills. You will benefit from working together and taking advantage of the expertise of the Lecturers. We strive to provide students with a sound basic foundation in biology and show them why the subject is important, exciting, fascinating, relevant, and fun. While you have less experience teaching, you are in a unique position to influence the students since many will relate more easily to you being closer to their own age and experience. You can influence how they study, take responsibility for their actions and a variety of other issues far broader than making sure they understand the role of microtubules. This can be truly rewarding and here is evidence that this actually happens."

To give you an idea of the impact you can have, let me share an email I got from a student recently:

> Professor O'Dowd,: My name is Jillian and I was in your bio 93 class in the fall of 2004. Idid rather poorly on the first midterm in the class, and so I met with you after class one day, and you spent a good amount of time talking to me, not about the midterm itself, but more about how to study for the class, such as recopying notes, drawing diagrams and labling them yourself, etc. I just thought that I would e-mail you and thank you for taking that time almost two years ago to share those things with me. I used the study techniques that you shared with me for the final in the class, and was very successful. During the rest of that year, and especially last year in bio 97, 98, and 99, I have continued to use the same study strategies,and have ended up being completly successful in my classes. So thank you for taking that time to share those study strategies with me, for I still use them, and am very greatful that you took the time to help me out."

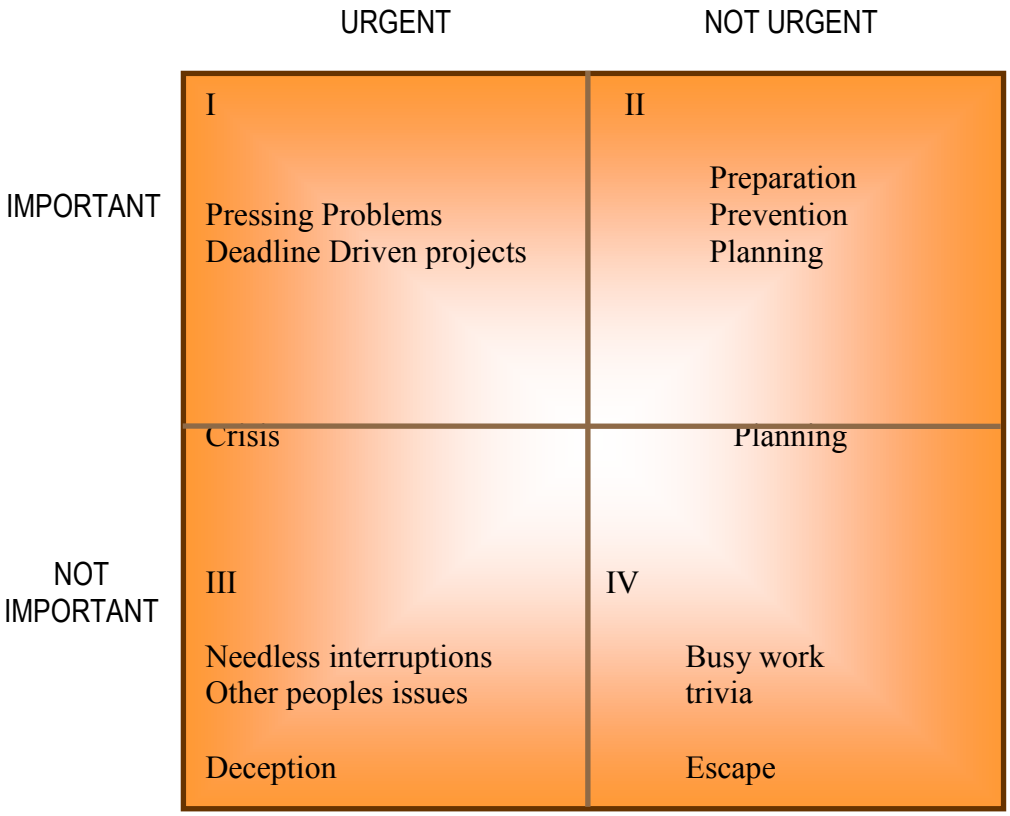
**Flip Chart group Activity on Time management (35 minutes)**

**Goals:**
**"**While much of this program is associated with learning and practicing new teaching skills, the graduate student fellows are also required to continue doing their research during this period since most of you have 50% appointments. Some of you are also course coordinators and as such have administrative as well as teaching responsibilities. So next I have designed an activity for development of skills and identification of strategies that will help you be more productive and relaxed while balancing teaching with your other responsibilities."

**Implementation**:

"1. One way to do this is to borrow some ideas about time management strategies that have been developed most thoroughly for the business community.

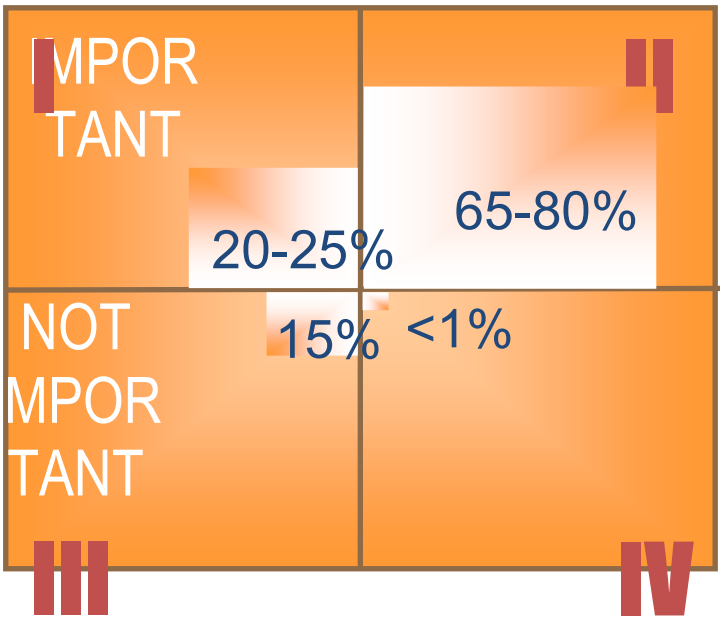
a. One of these strategies first involves identifying all of the tasks we do on a daily basis in our jobs.
b. Next we need to categorize these jobs in terms of two parameters,
    I. Importance (ask for definition but the end with this)Tasks whose completion is necessary to accomplish your goals
    II. Urgency: (ask for definition but end with this)Tasks you must complete by a deadline that is externally controlled
c. Plot jobs on a time management matrix. Only have the outside labels. This defines 4 quadrants. I in which we have important and urgent task II in which we have important but not urgent work (planning required), III where we have urgent but not important work (deceipt-urgent but does not move you toward your goals), and 4 where we have tasks that are neither important or urgent (escape).




a. Break into 4 groups of 5, and distribute yourselves at 4 corners of the room, where we have a piece of paper taped up. Each of you has one of the quadrants. Label your quadrant, Fill in examples of work tasks that you have be doing for the past quarter (can be either teaching or research) that fit into this category, and then also include the impact of how working in this mode made you feel. Spend a few minutes and if you need reminding what fits in these categories you can look on the board.

b. Rotate so each group gets to each quadrant and add in items or put checks to indicate tasks that came up more than once.
c. Have them sit back down. Look at each quadrant and then give them the labels as Crisis mode, planning, deceipt, and escape.
    a. Which quadrant do you spend most time in and which least
    b. What would you like the percentages to be?

3. Show high performance oganization percentages. Discussion: Firefighter analogy: Spend most time in II, where they train, prepare, organize. Spend some time in crisis mode and then spend time analyzing what brought crisis on, how to reduce the probability that this will happen again. Train people to give you what you want. See, do, get (train people to see you so they give you what you want)




4. What steps can you take to make the shift I to II, and from III to II.

a. Lets develop a list of best practices to help us spend more time in quadrant II and less in the other three, dealing with the most common research and teaching tasks that end up in these quadrants. For example how do we reduce the number of emails from students asking about clicker points. Assign specific ones to each group, write down the quadrant it was in and the solution. Give each group a time management matrix. These will be turned in and we will make a copy for everyone.
b. Hand out best practices list from last year.

6. Defining goals (10 minutes):

Since you are in this program you have clearly defined teaching goals, many of which are deadline driven

As a TA you will be expected to spend 20 hrs/ week doing teaching work and 20 hrs / week doing research. We have printed out a calendar which is in your notebook. Mark teaching responsibilities including heavy load time around midterm and final. We have clearly defined goals in teaching so this can often consume you unless you start the quarter with a clear plan of your goals in the other areas you want to achieve.

For graduate students it is therefore vitally important that you define your research goals for the quarter before you are consumed with teaching.

Define research goals:

1. Be specific. For example make a list of : (Have them suggest examples)
    - A. experiments you want to accomplish
    - B. papers/reading you want to do
    - C. sections of papers you want to write
2. Prioritize
    - A. If you have a number of things on your list organize them in terms of priority
3. Don't be overambitious (Discuss how you calculate our multiplication factor-from my brother)
    - A. Decide how much time it would take to do each specific item on your list if everything went perfectly
    - B. Estimate your multiplication factor
4. Set milestones for progress
    - A. 5 week goal
    - B. 10 week goal

All TAs for 93,97 and 103 were assigned to these classes since they indicated on a preference sheet that they wanted to be part of the HHMI-UCI graduate teaching fellows program. To be officially in this program you have to sign up for the optional class Dev Bio 208 and complete the following requirements during the quarter.

a. Complete all sections of the Research Report Form by the deadlines indicated on the sheet (cumulative). I will email everyone a copy of this report form and it will be posted on the course website.
b. And all TAs that are enrolled in this course will also have Adrienne and/or myself attend at least one of your discussions, will provide written comments on your teaching progress and you will need to respond in writing with at least one change that you will implement in response to the comments.

**Research Report Form: Research Goals, Midterm progress, and Final Research Accomplishments**

Dev Bio 208 A, Course Code 09098, Title: Balancing the Academic workload
HHMI-UCI Graduate Teaching Fellows, Fall 2007
Instructor: Diane O'Dowd

Instructions: To help you make progress toward accomplishing your research goals while also TAing this quarter, complete appropriate sections and email by due dates specified to Diane O'Dowd (dkodowd@uci.edu) and cc your thesis advisor. Final document should have ALL sections completed.

Graduate Student Name:
TA assignment:
Thesis Advisor:

**9/30/07 Summary (150 words max).** *Include what your lab is interested in, brief introduction to your specific project, and general research goals for the quarter.*

**9/30/07 Research goals outline (1 page max)**. *Goals can include specific experiments, writing (for example completion of an abstract for meeting), learning new techniques, etc. Prioritize and include estimates of times for completion of each goal*

**11/2/07 Research progress (1 page max).** *Evaluate your progress to date and revise goals for second 5 weeks if necessary.*

**12/14/07 Research accomplishments (1 page max)**. *Summarize your accomplishments and describe at least one suggestion for a strategy that you developed or implemented that you found helpful in making forward progress toward one or more of your research goals.*