

## **GTA Training Best Practices Document**

GTA positions are the primary means of supporting our PhD student population. The duties of a GTA can be overwhelming, however, so providing better preparation for new and returning GTAs is in the best interest of the College and individual graduate programs. Better prepared GTAs will:

- Be better teachers and more satisfied with their performance
- Be more efficient in their duties and have additional time available for research
- Be more satisfied as COS graduate students

In addition, GTAs are one of our most important connections to our undergraduate student population, so preparing our GTAs for their roles in the classroom is essential. Better prepared GTAs will:

- Provide better instruction to our undergraduate population
- Produce more satisfied undergraduate students
- Reduce the workload on laboratory coordinators, assistant chairs, and chairs

The purpose of this document is to describe a set of “best practices” that resulted from a series of meetings with current laboratory coordinators and GTAs. Adjuncts would also benefit from many of these best practices. It is our recommendation that programs adopt as many of these best practices as is feasible.

1. Mandatory weekly GTA meetings – These meetings could be included in GTA contracts so that they become an official part of their duties. Ideally, the meetings would take place at the start of the week, which would require a time on Monday when no labs are scheduled for a particular course. If labs have to be scheduled at the time of the GTA meeting then they could be staffed by regular faculty or experienced GTAs/Adjuncts.
2. Create discussion boards or wiki sites where GTAs can discuss each experiment during the week. This will allow GTAs to share problems they observed in labs early in the week and explain how those problems were handled. GTAs could also share general tips of what worked for them in that week’s lab. Ultimately, this could be a long-term repository of information that the program can use to improve their labs and it could be made available to GTAs in subsequent years as a source of useful information.
3. Create head GTA positions. These GTAs would be responsible for coordinating the week’s GTA meeting and act as a first contact for questions. This would cut down on the work of the lab coordinator and/or let the lab coordinator focus on improving other aspects of the lab. Head GTA positions would probably need to receive a higher stipend than regular GTAs (10%?). No source of funding for head GTAs has been identified at this time.
4. Have new GTAs attend senior GTA lab sessions earlier in the week so that they will be better prepared to run that week’s lab session. This could be included in GTA contracts so that they become an official part of their duties.

5. Make grading rubrics available to GTAs for each experiment. This should improve grading consistency and reduce the time required to grade lab reports. It might also be a good idea to have new GTAs grade with the head GTA the first few weeks so that they can learn how to properly grade the lab reports.
  - a. It would also be a good idea to make the grading rubrics available to the students as it will help as they write up their lab reports and improve their performance.
6. Create a standard PowerPoint presentation for each lab and supply them to the GTAs. This will improve consistency in the material that is presented to the students and will also decrease the GTA workload.
7. Create a test bank of quiz/test questions that GTAs can use. This would take the responsibility of creating quizzes and tests away from the GTA, will help standardize lab sections, and may improve the grading consistency across lab sections.
8. GTAs often learn best from each other, so it might be useful to have some mock teaching critiques as training sessions. Senior GTAs could act as the critiqued teachers and exhibit both good and bad teaching behavior.
9. The GTA coordinator (or head GTA) should conduct regular classroom observations. These should not be punitive, but rather be a chance to spot problems early while they can be corrected. All GTAs should be observed at least once a semester.