

Fall 2001: In Fall 2001, 15 Teaching Fellows, CNDLS staff, and Biology faculty gathered every week for an hour and a half to discuss teaching and learning theory and practice. The 15 included:

- 8 first-year Biology graduate students serving as Teaching Fellows for the first time, some with prior teaching experience but many new to instruction and/or an American classroom
- A senior TA in the department
- CNDLS staff members and Biology faculty.

The curriculum covered a wide range of topics, such as “Delivering Effective Lectures” and “Good Assessment Techniques.” Overall the course was well-received – one student commented, “I enjoyed the informal nature of the course, learning from different perspectives and other’s teaching experiences.”

Fall 2002-Spring 2003: We extended the course to meet every other week over the fall and spring semesters. In the fall, we had two Biology Teaching Fellows; in the spring (after advertising more extensively) we had three more participants besides the two Biology TFs from the fall: one Interdisciplinary Program in Neuroscience student, one Cell Biology student, and one senior Biology TA. Four guest speakers visited over the year: Brian Coppola (University of Michigan), Jeff Byrd (St. Mary's College-Maryland), Linda Hodges (Princeton University), and Tom Marino (Temple University). In the final course evaluation, participants expressed agreement or strong agreement that they were acquiring the skills needed to perform successfully as both a Georgetown TF and a future faculty member with teaching responsibilities.

Fall 2003-Spring 2004: This fall we have 22 participants: 12 from Biology, 7 from the Interdisciplinary Program in Neuroscience (IPN), and 3 from the Psychology Department. We recently conducted a Teaching Self-Confidence Survey that included a question on where they saw themselves in the transition from graduate student to instructor. One participant said, "I never had any teaching experience before but I love this now. I'm really enthusiastic and will be able to share it with my students." Our goal is that through further guest speakers and hands-on assignments like classroom observation, teaching philosophy statements, and microteaching, we will continue to increase their confidence as an instructor.

- ◀ *At least one Biology graduate student in 2002 chooses to come to Georgetown because of the class Bio 504.*
- ◀ *Another department, Linguistics, requests assistance with developing a similar course for its graduate students.*
- ◀ *This course has been a means of collaborative enterprises among Biology, IPN and Psychology*
- ◀ *This course is a means of collaborative enterprises among other universities, including Howard University and the universities of our guest speakers.*

Goals of this program are:

- to produce a rigorous, pedagogically sound, and nationally accepted model for the education as teachers of graduate students in the sciences;
- to attract to Georgetown a greater number of highly-qualified graduate students in the sciences;
- provide support to those graduate students in becoming effective teaching assistants in their disciplines at Georgetown;
- provide preparation to those students as future faculty in science disciplines.

Learning opportunities include:

- A model course in science pedagogy for graduate students in the biomedical sciences as a required component of their graduate education;
- An advanced course for upper level doctoral students in which more substantial practical skills in teaching will be obtained through an iterative process of mentorship, execution, and assessment;
- A communal digital archive of graduate student teaching portfolios, including actual work samples (artifacts of teaching) combined with reflective commentaries.

Two models of implementation:

Science Educator Model

Teacher responsible for course = one science professor with an education background

Time Commitment = one-third of the science professor's semester workload

Center for Teaching and Learning (CTL) Model

Teacher responsible for course = combination of non-science education specialist(s) and ongoing disciplinary support

Time Commitment for education specialist = 12 hours per week (in CNDLS, two people spend about six hours per week)

Time Commitment for disciplinary liaison = one hour per week

Major Assignments for Biology 504

Assessment project

We ask participants to conduct an assessment in a class they are TFing, and then write up a “case study” of the assessment that has three parts:

- Framing (What did you want to learn?)
- Implementation (How did you conduct the assessment?)
- Results (What did you learn?)

In-class micro-teaching presentations

A TF prepares a 5-10 minute presentation and presents it to the class, receiving immediate feedback. It is usually videotaped, the tape being owned by the TF.

Statement of teaching philosophy

Our goal is that participants should be able to identify learning objectives important to teach in the sciences and articulate how they plan to integrate and test for the success of those objectives.