



# Teaching for Learning (T4L) at CUNY: Programs for STEM Graduate Students

## The Graduate Center, City University of New York



Linda N. Edwards, Ph.D.  
Associate Provost and Dean for Academic Affairs (LEdwards@gc.cuny.edu)  
Lesley Davenport, Ph.D.  
Executive Officer, Biochemistry Doctoral Program  
<http://web.gc.cuny.edu/provost/T4L.htm>

### The Graduate Center, City University of New York: Background

- Established in 1961, The Graduate Center is the doctorate-granting institution of The City University of New York
- Enrollment has grown to about 3,700 students in 30 doctoral programs and six master's degree programs in the humanities, social sciences, and sciences.

Teaching for Learning (T4L) 1

### STEM Doctoral Programs

There are ten CUNY-STEM doctoral programs

Biochemistry	Engineering
Biology	Mathematics
Chemistry	Physics
Computer Science	Psychology
Earth & Environmental Sciences	Speech & Hearing

Teaching for Learning (T4L) 2

### Teaching for Learning: A Unique Challenge

- Most doctoral students in the science, technology, engineering, and mathematics (STEM) disciplines carry out much of their day-to-day work at one of the CUNY senior college campuses spread throughout the New York City metropolitan area.
- Few research laboratories are housed on the Graduate Center campus.

Teaching for Learning (T4L) 3

### Teaching For Learning (T4L): The Challenge

- With the dispersed structure of the Graduate Center comes a wide variety of teacher-training programs.

Teaching for Learning (T4L) 4

### Teaching for Learning: Two CUNY-Wide Initiatives

- Teaching for Learning (T4L) at the CUNY Graduate Center:**
  - A website, currently under development, that will provide an overview of teacher-preparation programs for STEM doctoral students at CUNY
- CUNY Graduate Teaching Fellow (GTF) Workshops:**
  - A teacher preparation program
  - Based at the Graduate Center
  - Open to doctoral students in all disciplines

Teaching for Learning (T4L) 5

### Teaching For Learning (T4L) Proposed Goals

- Teaching for Learning (T4L) is a work-in-progress website that will integrate a variety of available CUNY teacher preparation programs for STEM doctoral students.
- Will facilitate exchange of information about best practices in preparing future faculty in the STEM disciplines.
- (<http://web.gc.cuny.edu/provost/T4L.htm>)

Teaching for Learning (T4L) 6

### T4L Program Themes

- Programs are grouped within three broad themes:
  - Effective Communication
  - Methods of Mentoring
  - Teaching Approaches

Teaching for Learning (T4L) 7

### Effective Communication

- Annual Celebration of Science
  - Poster presentations
- Conferences
- Seminars
  - Program & campus
- Workshops
  - Blackboard
  - Dissertation Preparation

Teaching for Learning (T4L) 8

### Teaching Programs

- ACS-Project Teach
- NSF-Graduate Teaching Fellows in K-12 Education
- NSF-Preparing Future Faculty
- CUNY-Graduate Teaching Fellows

Teaching for Learning (T4L) 9

### Graduate Teaching Fellows Program

- Open to all Graduate Center doctoral students who have been awarded a Graduate Teaching Fellowship.
- Typically GTFs begin teaching on entering their second year in the doctoral program.
- One-day orientation program with workshops.

Teaching for Learning (T4L) 10

### Graduate Teaching Fellows Orientation Workshops

- Faculty Run Workshops
  - Preparing a syllabus
  - Teaching a diverse student body
  - Testing and grading
  - Cheating and plagiarism
  - Dealing with student disabilities
  - Recognizing and responding to incidences of sexual harassment
  - Specialized workshops (e.g. using Blackboard)

Teaching for Learning (T4L) 11

### Outcomes Assessment

- GTF Preparation Program**
  - Feedback questionnaire is non-quantitative
    - Develop quantitative web-based workshops with quantitative web-based assessment surveys
  - Teaching evaluations for STEM graduates are carried out at the CUNY campus.
    - Difficult to measure outcomes
    - Develop student self-help questionnaires
- T4L Website**
  - Need for centralization of information
    - Initial stages
    - Collection of information will be a challenge
  - Promote development of preparation programs across disciplines
    - Integration of programs into the doctoral curriculum

Teaching for Learning (T4L) 12