

# CIT Faculty Instructional Technology Fellows Program 2004-05 Individual Fellows ("Track 1") Program Report and Evaluation

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## Overview

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Duke's Faculty Instructional Technology Fellows program helps faculty use technology to improve teaching and learning and helps schools and departments build instructional technology expertise. Detailed information about the CIT Fellows Program is available at:

<http://cit.duke.edu/help/funding/fellows/fellows.do>

This report summarizes the 2004-05 Track I Faculty Fellows Program. This program supports individual faculty in developing and implementing instructional technology improvements in at least one of their courses. During the year-long program, faculty work with CIT staff to learn how to use basic instructional technologies to enhance teaching and learning in at least one class.

## Program Goals

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The goals of CIT's individual Faculty IT Fellows Program are:

1. Develop skills, knowledge and confidence of Duke faculty in using instructional technologies to enhance teaching and learning
2. Develop Duke faculty as instructional technology resources within their departments
3. Support the development and implementation of high quality and innovative instructional technology interventions to improve student learning at Duke

### **2004-05 Track I CIT Fellows**

Thirteen Fellows were selected by the CIT Advisory Board and CIT staff as individual Fellows. These 10 Faculty and 3 Graduate Student partners included:

Matt Cohen & Allison Dushane, *English*  
Ingeborg Walther, *German*  
Ulrike Stroszeck, *Romance Studies*  
Sucheta Mazumdar & Zihui Tang, *History*  
Daniel Foster, *Theater*  
Aaron White, *Medical Psychiatry*  
Alyssa Perez-Edwards, *Biology*  
Deborah Gold & Joceyln Bailey, *Sociology*  
Nestor Schmajuk & Jose Larrauri,  
*Psychological & Brain Sciences*

## Fellows Program Activities

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The program began with a weeklong orientation May 10-14, 2004. The week's activities were designed as a set of workshops and discussions about the Fellows program and its goals, introduction to a variety of technologies for classroom instruction and their effective uses, project development, and individual consultations. A report on the 2004-05 Fellows program orientation is available on the CIT web site.

Three additional group meetings were held in September, January, and March. In addition, all Fellows presented their projects at the 2005 CIT Instructional Technology Showcase held April 22, 2004 in the Bryan Center. Images of the Fellows' posters are available via the Showcase web site (<http://cit.duke.edu/showcase/2005/>). Each Fellow also submitted a

final individual project report to CIT. Project abstracts for all of the 2004-05 Fellows are available here: [http://cit.duke.edu/help/funding/fellows/fellows2004\\_2005.do](http://cit.duke.edu/help/funding/fellows/fellows2004_2005.do).

Fellows had a variety of reasons for wanting to increase integration of technology into their teaching. The most relevant student outcomes for a majority of these Fellows were:

- Improving the availability (convenience or flexible access) for course materials (n=10)
- Increasing the depth of student learning (n=9)
- Effectively addressing difficult course content or concepts that students typically struggle with (n=8)
- Modernizing course content (n=8)
- Increasing student participation in class discussions (n=7)
- Increasing instructor-student interaction (n=7)

## Outcomes

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Each Fellow proposed a project to be completed and implemented in at least one course. Brief descriptions of each Fellow's project are located in the Appendix of this report (p. 4).

### Programs, Courses & Students Affected

Faculty projects were implemented in 12 sections of 9 different courses with total registration of 176 students. Faculty Fellows implemented projects in courses in Biology, English, History, the ISIS program, Literature, Music, Sociology, and Theater Studies.<sup>1</sup> Two Fellows were unable to complete their projects due to other commitments.

### Impact on Fellows

Fellows reported that as a result of their participation in the program, they:

- Learned new software tools (n=12) and hardware tools (n=5)
- Created technology-based resources for students to use for independent study, drill, or self-assessment (n=8)
- Developed a Blackboard (n=8) or non-Blackboard custom web site (n=3)
- Created technology-based materials for in-class presentations (n=7)
- Digitized video (n=6), images (n=5), or audio (n=4) for course use
- Led online discussions (n=5)

#### Comments from 2004-05 Faculty IT Fellows

*"The IT Fellows program was a tremendous help in designing this course, and allowed us the flexibility to design it in a modular way for future semesters."*

*"Now I'm more aware of different technologies that can be used in class. I learned how technology could be used to strengthen my personal interaction with students..."*

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<sup>1</sup> Some overlap in registration across these courses is possible; the total enrollment of these courses may represent fewer unique students. Two courses were cross-listed in multiple academic programs.

## Impact on students

Fellows reported that students, as a direct result of their projects:

- Used multimedia to complete assignments (n=9), during class sessions (n=4), or for self-assessment (n=3)
- Learned new software or hardware tools (n=8)
- Participated in online discussions (n=7)
- Used technology for collaboration (n=5)
- Conducted original research (n=4)

Using a variety of methods, fellows individually assessed the impact of their projects on student learning outcomes and their achievement of other project goals. (See *Project assessment example*, right.)

## Barriers to Success

Setbacks and challenges reported by Fellows during implementation of their projects included:

- Time-consuming nature of the project, with no accompanying reduction in teaching load or administrative responsibilities
- Difficulties with existing hardware in the department

### ***Project assessment example***

Alyssa Perz-Edwards used online surveys to monitor the implementation of streaming video in her biology lab courses. Students completed a questionnaire to report their ability to access the online videos and assessing the usefulness of having these lab procedure videos available via Blackboard rather than shown during class.

One student commented:

*"[S]treaming media is a very good idea. Sometimes professors use them in class, but go over them too fast or don't replay them. Having them on Blackboard is convenient."*

## Feedback on Faculty IT Fellows Program Support

In-depth CIT consulting and interaction with other Faculty Fellows were cited by participants as the most important aspects of the program. Other significant aspects included Showcase participation and monthly meeting content.

Suggestions for changes or improvements to the program included:

- More depth on some technical topics (Flash, blogs)
- More time spent in monthly meetings having peer presentations of projects

Questions about the Faculty IT Fellows Program?  
**Contact the Center for Instructional Technology (CIT)**, <http://cit.duke.edu/help/ask.do>

## Appendix A: Brief Project Descriptions 2004-2005 IT Fellows

**Faculty member: Matt Cohen, English**

**Graduate student partner: Allison Dushane**

In English 150A, students edited an electronic version of a Walt Whitman biography for the Walt Whitman Archive

<http://jefferson.village.virginia.edu/whitman/>

Their Fellows project included an exploration of tools that students can use for tutorials when encoding the text, forums for discussion of their work, and electronic means that students can use to organize their work in small groups on the text.

Complete descriptions of each fellows' project are available at:  
[http://cit.duke.edu/help/funding/fellows/fellows2004\\_2005.do](http://cit.duke.edu/help/funding/fellows/fellows2004_2005.do)

**Faculty member: Daniel Foster, Theater Studies**

In his combined Fellows and iPod project, Foster created an online collection of digitized radio shows and scripts. During the course, students experimented with creating their own radio shows for the Web. <http://www.thetheaterofthemind.com/>

**Faculty member: Deborah Gold, Sociology**

**Graduate student partner: Jocelyn Bailey**

Gold and Bailey used a variety of Blackboard features to improve access to materials and student participation in Sociology 164, Death and Dying, including the group features of Blackboard, discussion boards to encourage student participation, and streaming video to provide access course video outside of class.

**Faculty member: Sucheta Mazumdar, History**

**Graduate student partner: Zihui Tang**

Mazumdar and Tang created a rich set of course materials including images and film clips to complement the lectures and readings for History 172B, China and the West, and 172C, China from Antiquity to 1400. They also explored the use of evaluation tools to gauge student background knowledge about China at the beginning of the course and better measure ways in which the course has affected their perceptions of China.

**Faculty member: Alyssa Perz-Edwards, Biology**

Perz-Edwards digitized movie clips for her Blackboard course site for Biology 205L, Experiments in Development and Molecular Genetics. Students used these videos to explore experimental methods and embryo development; also, the use of video outside of class time enabled students to prepare for labs and opened up more time for discussion during class.

**Faculty member: Nestor Schmajuk, Psychological and Brain Sciences**

**Graduate student partner: José Larraui**

For Animal Learning and Cognition: A Neural Network Approach, PSY 223, Schmajuk and Larraui created a web-based simulation of a neural network model to reproduce learning that takes place during classical conditioning. Students used a graphical interface to run "virtual" experiments with the simulation and produce graphical real-time output.

**Faculty member: Ulrike Stroszeck, Romance Studies**

For French 76, Advanced Intermediate Grammar and Culture, Stroszeck created a set of interactive web exercises to allow a tighter integration between the grammatical exercises and the readings, video clips, advertisements, films and web materials used in the course.

**Faculty member: Ingeborg Walther, Germanic Languages and Literature**

Walther designed a series of web-based multi-media modules for student use outside the classroom. These modules use streaming media to make culturally authentic, engaging

video and audio materials available to students on the web, as well as a variety of interactive activities to foster students language acquisition and cultural literacy.

***Faculty member: Aaron White, Medical Psychiatry***

White created a media-rich Blackboard site to organize faculty lecture materials for PSY 102, Alcohol: Brain, Individual and Society, a course taught by a number of faculty members through the semester. Materials included Powerpoint presentations, lecture notes, calendars and assignments, as well as new types of multimedia resources.