

Overview

of Course Redesign Projects at Fairfield

- **The biology project** redesigns the two-semester introduction to the biological sciences required of all Biology majors. The redesign effort focuses on the consolidation of multiple sections into a single large classroom format with the aid of information technology. In the classroom, students will work in teams of 2-3 around individual laptop computers, each of which will be connected to an instructor-controlled computer via wireless technology. Software modules that focus on inquiry-based, student centered instruction will enable student teams to lead in-class discussions via a peer-mentoring format. In the lab, students will again use the laptop computers to conduct independent investigations that use modern software packages and web-based exercises.
- **The economics project** provides a new model for teaching introductory micro and macroeconomics. As with the biology project, small lecture sections are consolidated into larger lectures. Our major innovation is that the courses are now structured to include a "lab" experience in which students meet once each week as small groups in a networked computer lab. The focus of the lab is to let students act like economists, posing questions along with classmates, forming hypotheses, and analyzing data in order to better understand answers to their questions. Like the biology project, information technology is used in both the lecture and lab sections to transfer information in an efficient way, and to allow students more time for inquiry and active learning.
- **The mathematics Mathonline project** develops a flexible system for randomly generating multiple choice mathematics questions that test basic skills in introductory math courses, and for delivering them to students online. A three-year experiment combines the online questions with peer tutoring to move much of the acquisition and assessment of basic skills outside the classroom. This allows instructors to spend more in-class time on higher level skills and concepts.



Retooling the Introductory Experience:

Technology, Pedagogy & Course Redesign

Directions to Fairfield University:

By car: Via I 95, exit 22 (from NY, turn left onto Round Hill Rd.; from New Haven/Boston, turn right onto North Benson Rd.) Via Merritt Pkwy (Route 15): Exit 44, left onto Black Rock Tpke (Rte. 58), two miles to Stillson Rd (Rte 135) and turn right. Bear left onto North Benson Rd to the entrance, and follow signs to the Dolan School of Business.
By plane: Sikorsky Airport (15 minutes away) or New York City (limousine service available to/from LaGuardia, JFK, and Newark airports.)
By train: The University is five minutes from Fairfield's Metro North Station, 20 minutes from Amtrak's Stamford station, and one hour from NYC's Grand Central Terminal.

Conference Sponsored by:

The Humanities Institute at Fairfield University

Technology Redesign Projects Supported by:

The E.L. Cord Foundation
The Davis Educational Foundation
The Pew Center for Academic Transformation at Rensselaer Polytechnic Institute – The Pew Charitable Trusts

Conference Planning Team

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June 17-19, 2001

Fairfield
University
Fairfield, CT

Conference

Overview

What is this conference about?

In recent years, college and university faculties across the United States have been experimenting with the power of the Internet and other computer technology in the education process. We have incorporated various small and large uses of the new technologies into our individual courses and have learned much about what does and does not work. For many of us the next step towards realizing technology's potential in education is incorporating it into major course redesign and new pedagogical approaches in multi-section, usually introductory courses. The scale of these efforts offers the possibility of great improvements in the quality and efficiency of our teaching. However, that scale also raises a host of new issues, such as funding, organization and coordination, training, release time and formal assessment, that are typically not part of our traditional approach to teaching. Those involved in and those considering such projects need to be able to share ideas and form a network of communication. This conference is intended to contribute to and accelerate the emerging dialogue around these pressing issues.

Who should attend?

This conference is designed for college-level educators who are interested in exploring creative uses of technology to enhance teaching and learning. We are particularly interested in course redesign and new pedagogies for multi-section and introductory-level courses. Participants should be prepared for demonstrations of applications, workshops, and hands-on experimentation with technology resources. Rather than developing these new strategies in isolation, we hope to gain from the collective insights of the participants.

How will the information be presented?

Currently, Fairfield University faculty in mathematics, economics, and biology are working on projects that target students at the introductory level. These projects involve technology in and out of the classroom and have a variety of proposed learning outcomes. We plan to share these models with participants by presenting the ideas and involving everyone in demonstrations of our techniques. In addition, we will invite teams of presenters from other institutions to join us and share their ideas and models of course and

curriculum redesign. All presentations and workshops will focus attention on what students and teachers actually do to make these strategies work. As with our classroom strategies, our goal with the conference is to actively involve participants in the use and development of solutions to classroom challenges. Breakout sessions will be organized around common questions and themes that emerge in presentations and audience dialogue. We hope to inspire lively discussions that lead to the birth of new ideas for course pedagogy using technology.

Conference

Schedule

Sunday, June 17, 2001- 4:00 PM – 7:00 PM

Registration, check-in and dinner

Monday, June 18, 2001 - 8:00 AM – 7:00 PM

- 8:00 - 9:00 Continental breakfast
- 9:00 - 10:00 Keynote Address
- 10:00 - 11:00 Fairfield Models - Redesigning Biology, Economics, and Mathematics with Technology
- 11:00 - 11:30 Breakout sessions
- 11:30 - 12:30 Fairfield Models - Classroom Demonstrations
- 12:30 - 1:30 Lunch
- 1:30 - 3:30 Invited presentations from other schools
- 3:45 - 4:45 Assessment Panel Discussion
- 5:00 - 6:00 Hands-on practice with technology sessions
- 6:00 - 8:00 Dinner

Tuesday, June 19, 2001 – 8:00 AM – 12:00 PM

- 8:00 - 9:00 Continental breakfast
- 9:00 - 11:00 Contributed papers from other schools
- 11:00 - 12:00 "The Challenges and Opportunities Presented by Technology"
A panel of faculty discuss the potential technology has for transforming education
- 12:00 - 1:00 Closing and light lunch

Registration

Information

The conference registration fee is \$100.00 per person and includes food, two nights lodging and materials. Guests will be housed in the new apartment style dorm complex completed in September 2000 with individual rooms for each guest within apartments designed for four people. All meals will be served in the Charles Dolan School of Business Dining Room. The conference fee does not include travel expenses.*

** Housing is guaranteed for the first fifty participants.*

Conference Application (Deadline: March 1, 2001)

Name:

Title/Department:

School:

Address:

E-Mail:

Web Site Address:

☐ **Yes**, I am interested in my making a fifteen-minute presentation showcasing the use of technology and pedagogy.

Please describe briefly what you are interested in presenting. Feel free to attach additional sheets.

Please describe briefly your main interests in instructional technology.

To Apply, please complete this registration and mail with check (payable to Fairfield University) to: Dr Larry Miners, Department of Economics, Fairfield University, 1073 North Benson Rd., Fairfield, CT 06430