



FOR IMMEDIATE RELEASE

March 17, 2009

UWTV engineers help faculty, students make high-tech connections

Recent project links students in Seattle and Spokane using automated video, audio

SEATTLE — Engineers with UWTV ensure that the University of Washington is setting the standard for today's technologically innovative classrooms while preparing for the future needs of students in our state and beyond.

Working closely with various colleges and programs on campus, UWTV engineers coordinate the installation of high-tech video and recording systems to help faculty and students connect, no matter how many miles separate them.

"We make it our business to understand technology that allows faculty and students to connect in a dynamic learning environment. By leveraging our experience in broadcast television, we find solutions that use today's newest technologies and are also flexible enough to incorporate future advances," said UWTV engineer Noah Pitzer. "We also understand University of Washington culture and have experience coordinating with outside vendors as well as on-campus entities like the Capital Projects Office and UW Purchasing. It's through these strong partnerships that we're able to bridge the gap between our client's aspirations and a functioning, finished product."

UWTV engineers can count among their recent successes the completion of a distance learning classroom in the Magnuson Health Sciences Center. Implemented for use by the RIDE (Regional Initiatives in Dental Education) program, state-of-the-art technology in classroom T-733 is linking students and instructors on UW's Seattle campus to participating students in Spokane. Based on the UW School of Medicine's WWAMI model, the RIDE program educates a cohort of dental students in regional sites in Eastern Washington in collaboration with the UW School of Medicine, Eastern Washington University and Washington State University. New tools like automated high-definition cameras, an integrated audio system and comprehensive recording mechanisms take the distance education experience for RIDE students far beyond a simple teleconference.

Dr. David Pitts, Associate Professor of Endodontics and the Director of Educational Technology for the RIDE program, first approached UWTV engineers for assistance in connecting RIDE students on opposite sides of the state.

Working with the Capital Projects Office, UWTV engineers designed and managed the installation of distance learning technology in the classroom, including four cameras, two aimed at the instructor and two that focus on students and other participants. Automatic processes allow for seamless transitions between camera views. Sixty microphones allow every student, or additional instructor, in the 120-seat room to be heard; by pressing a button on the microphone, the automated system picks up their voice while a camera automatically focuses in on their face.

"Nothing quite like this has been done before in the School of Dentistry," Pitts said.

Two flat-panel television screens hang from the middle of the ceiling, allowing the instructor to view PowerPoint slides or other materials, as well as video of the Spokane classroom, without turning around to see the two screens behind them at the front of the room. Additional presentations are incorporated into the video output, allowing students in Spokane to continue viewing the video stream of their instructor speaking or another student posing a question, while PowerPoint slides are displayed simultaneously.

It's about discovery

Like any complex system, the equipment requires maintenance, but the automated nature of the system means that there is no need for manual camera or audio control. At times, a technician is stationed in the control room to monitor the connection to the Spokane class, though these functions can also be performed by the instructor through touch-screen controls at the podium.

In addition to the interactive live experience, Mediasite, a video streaming and archiving system, also records the lectures, incorporating any PowerPoint or other presentations, which are then made available to students who are either unable to attend a class or who wish to review a class.

"It's working beautifully," Pitts said. "I had no idea it would be this capable."

RIDE students are adapting quickly.

"They are desirous of using technology," said Dr. Wendy Mouradian, RIDE director and Associate Dean for Regional Affairs and Curriculum in UW's School of Dentistry, who added that the streamed lectures are very popular among students. "This has been highly successful."

The new high-tech classroom is not limited to use by the RIDE program; other students and instructors are also taking advantage of the equipment.

"It seems like every week we think of another opportunity to utilize these distance learning resources," Mouradian said.

The system's capability will be able to grow with changing demands and changing technology in the coming years, thanks to considerable forethought by UWTV engineers like Pitzer, who designed and oversaw the installation of the project.

"We build on an infrastructure that incorporates lasting technology while leaving room for future improvements," Pitzer said. By following flexible design principles and avoiding proprietary systems, the system can be updated or expanded easily.

Pitts anticipates an increased demand for technology like this, especially due to budget constraints.

"We have to use what resources we have, and wisely," he explained.

UWTV engineers look forward to working on similar projects in the future.

About UWTV

UWTV is the University of Washington's award-winning television channel, offering original, non-commercial educational video programming – 24 hours a day, seven days a week. A unique educational resource, UWTV provides viewers direct access to the world-renowned scholars, scientists and researchers whose insights and discoveries are at the heart of our university and are changing our world. Learn more at uwtv.org.

PRESS CONTACT:

Erin Lodi
Communications and Public Relations
UWTV
206-543-8907
erinlodi@u.washington.edu

It's about discovery