

Technology Vision Plan

2008-2009

College of Education
The University of Texas at Austin

Submitted by

The College of Education
The University of Texas at Austin



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College of Education Technology Vision Plan 2007-2008

Summary of Requests

The College of Education (COE) strives to continually improve the professional preparation of students in its undergraduate and graduate programs by utilizing technology to facilitate instruction, collaboration, and research. The COE demonstrates its commitment to this goal by working to integrate computing and telecommunication technologies into all aspects of its academic, research, and service functions. The College's steady advance toward this objective is evident in an educational environment enhanced with high-speed data networks, numerous technology facilities and services, and the training and support necessary to make effective use of these tools. The use of wireless laptops, online learning tools, and multimedia development software has flourished in this setting.

This technology-rich environment fosters collaboration and leads to innovation. New collaborative work areas allow students to use their laptops together and conveniently recharge batteries. Online tools let them communicate and create without physically being together. Faculty, inspired by the many possibilities for improving learning that technology offers, are given the support they need to develop and integrate new uses of technology into their instruction. Vision Awards provide faculty the expert assistance of a development team to bring technology projects, such as an online video case-based learning tool, to fruition. The IDEA Studio consults and collaborates with faculty to research and develop new uses of technology, leading to such instructional innovations as new uses of videoconferencing and an ePortfolio system.

Providing more opportunities for innovation and collaboration is the focus of several of the 2008-2009 College of Education Technology Vision Plan projects. Two projects, in the new Innovative Support for Student Learning category, will expand and improve the features of two online learning tools that have been developed in the College. The ePortfolio system, already in limited use in the College, allows students to easily create online portfolios of their coursework with temporary password protected access for prospective employers. The Video Case-based Online Learning Tool will allow instructors to add their own content to create custom video learning applications for the Web. These tools will have a major positive impact on instruction in the College and can serve as models for similar tools in other colleges on campus.

A project to provide Adobe Connect will allow faculty and graduate students to explore innovative uses of a flexible, multi-featured online communication and collaboration tool. Another project that will expand collaborative opportunities in the College proposes the creation of Collaborative Work/Presentation Areas. Informal groups of students will be able to gather at a large flat screen monitor with laptop inputs to work together on projects. And a flexible space to facilitate collaborative/laptop work during classes is the goal of the project to transform the Laptop Compatible Classroom into the Laptop Collaborative Classroom. Along with an instructor's console, the room will be outfitted with flat panel screens and tables that can be arranged in a variety of configurations to facilitate collaborative group work.

Other projects expand or upgrade the technology facilities and infrastructure that are the critical basis for the College's collaborative and innovative activities. A proposal to completely update the College's wireless network will result in a faster and more stable system. Another project will continue equipping classrooms with projectors, this year concentrating on updating the projection systems and instructor consoles in three computer lab/classrooms. Finally, a project to provide a projection system and computers for the new facilities of the H. J. Lutcher Stark Center for Physical Culture and Sports will help Kinesiology and Health Education students explore the richness of the Center's physical culture collection, the world's largest and most complete.

The budget requested for the 2008-2009 projects is **\$330,240**.

If there are questions concerning these projects or other information described in this report, please contact Dr. Paul Resta, Director, Learning Technology Center, College of Education (resta@mail.utexas.edu).

Overview of Current IT Programs and Infrastructure

Mission and Goals

Through its mission of teaching, research, and service to the state and nation, the College of Education at The University of Texas at Austin prepares outstanding teachers and other educational leaders and advances society's knowledge of teaching and learning. An integral part of the College's mission is to prepare education professionals who understand, and are skilled in, the educational uses of technology. The College is committed to preparing educators who can effectively use and teach with technology so that they can, in turn,

impart to their students the skills and knowledge necessary for a complex 21st century economy, with its critical need for workers who can use a wide variety of technologies.

The College has worked to fulfill this mission by utilizing technology to facilitate instruction, collaboration, and inquiry in all its undergraduate and graduate programs. The College's commitment to this mission is demonstrated by its educational environment enriched with high-speed data networks, numerous technology facilities, and the training and support necessary to make the best use of these tools. In recent years, the College has carried this commitment further, working towards making technology available anytime, anywhere in a distributed technology environment that encourages collaboration and innovation.

The College's Vision Plan Committee has developed the following technology goals that have been addressed on an ongoing basis by previous Vision Plans and other technology initiatives:

- Continue systematic College-wide strategic planning of information resources and technologies that include all students, faculty, administrators, and staff.
- Develop high levels of technological competence in the College's students, faculty, and staff.
- Provide access to high performance digital services and global online resources to support teaching, research, and service.
- Provide access to information technologies for all members of the College community and provide the support and experience needed in a range of technology applications and environments likely to be encountered in the workplace of the 21st century "Knowledge Society."
- Infuse technology into all phases of teaching, research, and service and develop new models, tools, and strategies of instruction based on the latest technologies.
- Provide students, faculty, staff, and other community partners with online collaborative environments and network access, both on and off campus, to promote the sharing of the information they need for study, teaching, research, and administration.

IT Programs

Laptop Initiative for Future Educators (LIFE)

The Laptop Initiative for Future Educators (LIFE), now in its sixth year, is a groundbreaking initiative that requires all teacher education students entering the professional development sequence to acquire a prescribed laptop computer

and software. The program is designed to immerse preservice teachers in a technology-rich learning environment of ubiquitous access to technology tools, Internet-based resources, and online communication systems in both their coursework and field experiences. Faculty and clinical supervisors are also equipped with the same equipment and software and are given curriculum development support.

This complex program requires considerable recurring funds for the salaries, equipment, and resources necessary to effectively carry out its operations. Extensive training is provided to faculty and students. Students may check out a wide array of peripheral technology equipment to prepare multimedia assignments created with their laptops, as well as loaners when their laptops must be sent for repair. The Laptop Help team provides walk-in technical support for students, covering both hardware and software issues. A coordinator manages this extensive range of efforts and resources, and provides information to other higher education institutions interested in developing their own laptop programs.

Several Vision Plan projects in recent years have addressed LIFE-related needs. Technology kits, equipped with projectors, digital cameras, and camcorders, have been provided to apprentice teacher cohorts for use in their field experience schools, and collaborative workspaces have been created in the Sánchez Building where LIFE students can use and recharge their laptops. Funding has also been used to replace aging loaner laptops.

Learning Technology Center

The Learning Technology Center (LTC) supports the College of Education's instructional and research activities by providing computer, digital media, and telecommunications facilities, equipment, and services. Through the work of the LTC staff, many new technologies have been made available in the College in recent years. The LTC developed and maintains the College's wired and wireless computer networks, the server system, and a conferencing/email system. Several large-scale technology facilities have been designed and constructed to serve faculty and students in five buildings, including a Student Collaboration Area, Distance Learning Classroom, and Model Technology Classroom. The center also provides nine other computer lab facilities, with both Mac and PC platforms. These include an Assistive Technology Lab with specialized hardware and software to teach students about adaptive equipment for people with disabilities, and a Laptop Compatible Classroom where students can plug in power to their own laptops during classes. LTC staff have also developed important technology services for the College, including an automated backup service for faculty and staff computers and an ePortfolio system. The LTC checks out peripheral equipment, such as digital camcorders, to students free of charge, and delivers

equipment, such as mobile laptop labs, to College classrooms. (See “Infrastructure” section below for more details.)

The LTC’s IDEA Studio assists College of Education faculty with the integration of technology into their curricula. (See IDEA Studio description in the Best Practices section for more information.) The Technical & Network Services team provides desktop technical help for College faculty and staff. The LTC also employs a Communications Coordinator who promotes the use of the LTC through electronic and print content, and a Web Designer who manages the College and LTC Web sites and assists departments and centers with their sites. And through the leadership of its Director, Dr. Paul E. Resta, the LTC has been involved in a number of research projects and collaborative initiatives that advance the use of technology to meet the needs of teachers and students throughout the state and nation.

These wide-ranging, high-quality resources and services require a large and skilled staff. The LTC employs 20 regular full- and part-time employees and 35 hourly part-time employees. Its IT-related funding consists of ITAC allocations (LTC personnel handle all ITAC-related purchases, and the resources purchased for many ITAC projects are housed and managed in the LTC), and a percentage of the flat rate tuition that all College of Education students pay each semester. (See “Funding Sources” section below for more details.) In addition to this college-wide program, some of the College’s academic departments have IT personnel, for the most part concentrated on maintaining departmental Web sites and setting up departmental computers.

Infrastructure

In the last two years, the College of Education has equipped 31 of its classrooms with projection systems, each consisting of a ceiling-mounted projector, a large, motorized screen, and touchscreen control system on a small console with cables for connection to a user-supplied laptop computer. Laptops are available for delivery if needed. Document cameras can also be connected to the system. The College has also completed the renovation of its Science Education Technology Classroom, SZB 316. This room has projection, instructor console, 30 iBook laptops in a mobile laptop cart, and science lab workstations.

Below is a list of the computer labs or IT-equipped classrooms within the Learning Technology Center and their resource specifications. All labs have access to ITS Printing Service laser printers.

- Distance Learning Classroom, SZB 323: Instructor console, rear screen projection, video cameras and microphones, technician-operated,

- providing interactive audio and video links via IP Codec, UT network, telephone, or webcast.
- Advanced Applications Lab, SZB 324: 40 Apple iBooks, wireless network, instructor console, dual rear screen projection.
 - Open Lab, SZB 439: 6 Dell Pentium 4s and 6 iMacs. Scanner available. Always “open” for student walk-in use.
 - Multimedia Research and Development Lab, SZB 439A: 10 Mac Pros, 10 Dell Pentium 4s with DVD burners, instructor console, and ceiling-mounted projection.
 - Macintosh Lab, SZB 439B: 30 Intel Core 2 iMacs, instructor console, and ceiling-mounted projection.
 - PC Lab, SZB 439C: 24 Dell Pentium 4s with DVD burners, instructor console, and ceiling-mounted projection.
 - Model Technology Classroom, SZB 439E: 25 Apple iBooks, wireless network, instructor console, rear projection, and 2 plasma screens.
 - Laptop Collaborative Area, SZB 536, 537: Group and individual seating for 40 to use laptops wirelessly, collaborate, study, and charge laptop batteries.
 - Open Lab, SZB 536: 8 Dell Pentium 4s, 4 iMacs, and 10 laptop-use stations with power and wireless network. Always “open” for walk-in use.
 - Laptop Compatible Classroom, SZB 518C: Wireless network and power for student-supplied laptops, large screen projection, seating for 23.
 - Assistive Technology Lab, SZB 518E: Specialized equipment to demonstrate accommodations for the needs of people with disabilities.
 - Kinesiology Lab in BEL 844: 13 Dell Pentium 4s, laser printer.

Additional computer equipment available for classroom delivery:

- Mobile presentation carts: 2 available in SZB, 1 available in BEL with MacBook with PowerPoint, wireless network connection, projector, and speakers.
- Mobile Laptop Class Cart: Cart equipped with 25 MacBooks for dual platform use with wireless network connection.

Video editing facilities include:

- 3 Digital Video Editing Bays in SZB 537: 1 with a Mac Pro, 2 with Power Mac G5s, with iMovie or Final Cut Pro; 2 have DVD Recorders.
- Stereo Audio Mixing Room in SZB 537: Power Mac G5, microphone, tape, and CD inputs with audio mixer.

Other equipment available for student and faculty checkout includes:

- Mini DV Camcorders
- Digital Still Cameras

- Digital Audio Recorders
- Apple and PC laptops
- LCD Projectors
- FireWire Hard Drives
- iSight Cameras
- Image Scanners
- Conference Phones

The Learning Technology Center's Technical & Network Services team maintains the College's computer data networks and servers and works hard to continually update these systems. Pertinent data on these systems include:

- Switched data network with 100% full duplexed 100 Mbps Ethernet connectivity. 1580 active network nodes spanning 5 buildings.
- 46 wireless access points provide wireless networking in 4 buildings.
- TeachNet, the COE e-mail and conferencing, and chat system averages 3,520 logins per day.
- The College has 33 servers, running Mac, Windows, and Unix systems.
- The College's Web server averages 88,700 requests per day.

Current and Proposed Funding Sources for IT Programs and Infrastructure

- 19-9706-00 – Annual Infrastructure Allocation and One-Time Project Allocation (ITAC Funding)
- 19-2638-22 – Learning Resource Center Usage Tuition
- 14-7482-80 – Deans Research and Support Account, which supports the Vision Award program. (See Vision Awards, Best Practices Section) Also covers the purchase of certain LIFE program software applications.
- 30-2101-27—UT Libraries UTOPIA Grant, which also supports the Vision Award program.

Best Practices

The College has implemented several “best practices” in recent years. Following are short descriptions of those that have had the greatest impact.

IDEA Studio

The IDEA Studio in the Learning Technology Center is a best practice in the College because it supports innovative uses of technology in education and helps faculty and their students make better use of the technology infrastructure. The

IDEA Studio provides technology integration support to College of Education faculty. Its services range from drop-in support for faculty who need help using their computer applications, to examining course syllabi to find ways to utilize technology to improve teaching and learning. The IDEA Studio also provides classroom training for students working on technology-based projects, customizing the training to fit the project and the students' level of experience.

The IDEA Studio support model emphasizes consultation and collaboration. The highly skilled IDEA Studio staff, most of whom have graduate education in curriculum and instruction, help faculty articulate goals, research options, and choose the most effective technology tools for their needs. The IDEA Studio also encourages innovation and research into the use of technology in education. In recent years, the IDEA Studio has helped faculty examine such topics as the use of desktop videoconferencing in teacher training and support and the use of online tools to teach difficult concepts.

Network and Information Security Policies

Perhaps foremost among the College's best practices are the detailed policies governing network and data security. These policies, developed by LTC Technical & Network Services staff, have served as a model for the network and information security policies of other colleges on campus. The policies require the registration of all COE computers, which allows quick response to security breaches. The policies also require logins with a centralized system using complex passwords and a basic security configuration "template."

Since their introduction in 2006, the policies have reduced the impact of viruses, operating system vulnerabilities, and hacking incidents. Technical staff spend less time managing these security breaches and can more easily distribute to College users the latest virus protection and security updates. Users also benefit from a more cohesive and seamless computing environment.

During the ISORA data risk assessment performed this summer, the LTC Technical & Network Services team developed an interview flow chart and a form for recording the data gathered. These resources were used by many other departments on campus, and have provided a best practices template for the annual assessments.

Vision Awards

The Vision Awards are certainly an example of a successful best practice. A 2002-2003 Vision Plan project proposed increasing technology integration in College of Education courses by tapping the technology expertise of UT students.

The ITAC funded project, dubbed the “Vision Awards,” began in 2003 with 10 projects. The program has continued to expand since then with funding from the Office of the Dean. Four student employees with a wide range of technology development skills are hired for the “Vision Studio” and work year-round on projects proposed in three-yearly award cycles.

The program supports faculty proposals for technology-based projects that enhanced their teaching and have the potential to improve instruction throughout the College. Vision Award projects have been an immediate boon to course instruction, benefiting hundreds of students each semester. The projects allow faculty to integrate technology activities into instruction in ways they have been unable to in the past. The program is making real progress toward the College’s goal to improve instruction with technology. The quality of Vision Award projects was recognized in 2006 when two of them received Innovative Instructional Technology Awards.

Trend Toward Laptop and Wireless Use

The move toward the use of laptops and wireless networking provides greater flexibility of access to instructional technology, promotes collaboration, and lowers the costs of equipping, maintaining, and staffing computer lab facilities. The creation of new laptop computing and collaboration spaces in the College will help to further facilitate this trend, and continues to be a priority. The LTC remodeled one of its areas to create a large laptop collaborative area, and an 06-07 ITAC project funded the creation of another laptop workspace for students on the third floor of the Sánchez Building.

Through the Laptop Initiative for Future Educators, the use of laptops and wireless networking has even extended into the public schools to enrich the field experiences of teacher education students. The College has also piloted the use of laptop videoconferencing to allow students in field settings at great distances to remotely participate in teacher education courses and receive university supervision. The College has also begun to pilot the use of laptop videoconferencing to support apprentice and novice teachers. The 07-08 project “PROMISE” is currently furthering these efforts.

Another goal the College continues to work toward, the installation of ceiling-mounted projectors in most of its classrooms, has begun to provide greater flexibility and convenience for faculty and students. Users plug their own laptops into the system, thus lowering costs because fewer deliveries of computer carts are needed.

Use of Previous Academic Year Allocations (2006-2007)

For the year 2006-2007, six projects were proposed with a total of \$296,282 requested in funding. In September 2006, the College of Education received an ITAC allocation of \$219,670. Based on this amount, the Vision Plan Committee partially funded five of the projects and fully funded one project.

- 1. Installation of Permanent Projectors in Classrooms.** This project proposed continuing with the installation of ceiling-mounted LCD projectors in College classrooms to facilitate the growing use of laptop computers in the College and to reduce the need for computer cart reservations and deliveries. The project proposed funding of \$100,000 to continue this effort; it was given a fully funded allocation of \$100,000. This funding, along with \$13,542 carried over from 2005-2006, was used to install equipment in nine rooms and to purchase an inventory of maintenance spares. \$66,606 has been spent. The remaining \$33,393 will be used in 07-08, along with an additional \$33,000 of 07-08 funding, to continue equipping more rooms.
- 2. Technology Tool Kits for LIFE Program Field Experiences.** This project called for an extension of the 2005-2006 project "Support of LIFE Project and Technology Utilization of Field Experiences" to provide technology tool kits for secondary education cohorts. \$65,200 was requested for the project, and it received \$58,550. This funding has been used to purchase new technology tool kit equipment and additional laptop computers for short-term checkout to LIFE facilitators and students.
- 3. Collaborative/Technology Workspace.** The College proposed creating more workspaces for students to work collaboratively, as well as comfortably use their laptops and recharge laptop batteries. \$9100 was requested. With the donation of furniture from the Dean's Office, the project was funded for \$3000, which provided for the installation of three fourplex electrical outlets in the floor of the southwest third floor area. This collaborative/study area was finished in the spring.
- 4. SPSS Statistical Software for College Computer Labs.** \$43,822 was requested to cover a steep price increase for computer lab licenses for SPSS statistical software, caused when SPSS changed its licensing and pricing structure. ITS negotiations with SPSS, along with a decision to install the software only in one computer lab and several checkout laptops, reduced the need for funding to about \$10,000, which was the

amount the project was funded. \$7,635 has been spent on the project so far.

5. **Instructional Applications of Handheld Computing Devices.** This project proposed examining the use of handheld technologies in education through the purchase of handheld devices and programming software, and by hiring a programmer to create handheld applications suggested through faculty proposals. \$47,610 was requested; the project received \$35,000. \$10,761 has been spent on the programmer, development software, and several handheld devices; the remaining \$24,238 will be spent on salary and a set of handheld devices.
6. **Video Conferencing and Observation Kits for Remote Support of Apprentice Teachers.** This project proposed videoconferencing kits so that the work of Kinesiology apprentice teachers and interns could be observed and supported remotely. \$30,550 was requested and \$13,120 was funded. \$10,273 has been spent on equipment for this project so far.

IT Projects for 2008-2009

Innovative Support for Student Learning Projects

These projects will support innovative new uses of technology in education and can serve as models for similar tools in other colleges on campus.

Expand College of Education ePortfolio System

Portfolios have long been used to display a professional's best work. And in education, examples of a student's work over time reflect growth of knowledge and skills, and can serve as a means of assessment. Electronic portfolios allow students' work to be displayed and stored online, especially needed for the multimedia projects most students now create.

After three years of research, faculty input, and pilot projects, the Learning Technology Center has developed and introduced the College's ePortfolio System, which combines the three features determined to be essential for COE students and that were not available together on any commercial system. It is easy to use, stores multimedia files, and provides temporary password-protected accounts for guests, such as prospective employers. The system has enough server space to provide up to 3 Gb of storage for each student.

While these features were developed with education students in mind, this system would be useful in any academic field. This project proposes adding a number of important features that could have an important and beneficial effect not only for COE students, but also for learning across campus. Faculty in the College are already asking for these features. Users would have the ability to share different resources with peers and instructors. Students working on a project could provide classmates with access to a draft version for feedback, and then submit a final version to the instructor. The ability to add comments in several ways would be added, along with social networking features, allowing students to identify common interests across cohorts and share teaching experiences.

The current version took over three years to develop because of the very limited amount of staff developer time available for the project. Vision Plan funding is requested so that the additional features that are needed now can be developed and provided as quickly as possible. The innovative features of the expanded College of Education ePortfolio system can serve as a model for other colleges on campus and will gladly be shared with all who are interested. This will greatly extend the impact of the funding for this important project.

Budget Detail:

.5 FTE Student Developer \$22,000

2008-2009 Budget Total \$22,000

Expand the Features of a Video Case-based Online Learning Tool

Video case-based learning has become an increasingly important tool in education and professional development. Within an online environment, video's benefits are easily available to students on the Web. This project proposes creating a video case-based online learning tool that could benefit any academic field or professional program and will allow faculty to explore innovative uses of video to improve instruction.

As part of its Vision Award program, the College of Education has already developed a small-scale video case-based online learning tool that is currently in use in some of its early reading classes. The system provides video demonstrations with transcripts and professor comments, and allows students to have text-based online discussions about the video material.

Since the system's development in 2006, several faculty in departments throughout the College have said they want to use it in their classes. Research interest in video case-based learning and the positive impact it can have on student learning is also high in the College. Eight faculty have formed a special interest group focused on video case-based learning, and other research efforts are focused on it.

This project will allow the College to develop a more general version of the system that will allow any faculty to easily add their own content and support a greater number of students. Other features will include more administrative and access controls and the ability to link to specific points in a video from discussion posts.

Budget Detail:

.5 FTE Student Developer \$22,000

2008-2009 Budget Total \$22,000

Provide Adobe Connect and Presenter Services for the College

Collaborative learning offers many benefits to the educational process. Talking and working with others to solve problems and make decisions facilitates learning and the achievement of deeper understanding. Online collaborative methods take the process a step further. Online settings create a dynamic, supportive learning community that engages students and exposes them to multiple perspectives. The online setting also saves time and money and provides flexibility by allowing groups to meet without physically coming together.

The College proposes to provide Adobe Connect and Adobe Presenter services to College faculty and students. These applications maximize the quality of interaction by providing a wide array of means to collaborate and communicate online, including video, audio, text chat, asynchronous discussion, and the ability to share and annotate files collaboratively.

These services will provide many benefits to students and will allow faculty to develop innovative uses of collaboration in their instruction. Faculty can run online office hours or class meetings. Student study groups can meet virtually and record their sessions. Users can share and annotate files together and watch any participant's videos or presentations. Adobe Presenter extends these capabilities by allowing users to add audio, video, and software simulations to Microsoft PowerPoint to create dynamic multimedia programs that can easily be shared online.

The methods that College of Education faculty devise for uses of Adobe Connect and Adobe Presenter will serve as models for other colleges to develop their own ground breaking online collaborative learning techniques.

Budget Detail:

Server	\$7,000
Database/Application Configuration— .5 FTE/9 months	\$16,000
Adobe Connect Server Licensing for 80 Concurrent Users	\$20,550
Adobe Connect User Licenses (80)	\$4,110
Adobe Presenter Licenses (40)	\$12,000
Annual Maintenance for Presenter Licenses	\$2,400
Server Software Media and Manuals Download	\$100
2008-2009 Budget Total	\$62,160

One-Time Projects

Transform Laptop Compatible Classroom into Laptop Collaborative Classroom

This project proposes transforming an existing technology classroom, the Laptop Compatible Classroom, into the Laptop Collaborative Classroom, which will facilitate computer enhanced collaborative learning and small group discussion.

The room currently has fixed tables facing a front projection screen. The project proposes replacing these with moveable tables, and adding four small wall-mounted LCD monitors. This arrangement will allow students to easily break into small groups and work with their laptops on projects and presentations around a monitor that is easy for everyone in the group to see. Like the existing room, the tables will have power connections for the students' laptops.

This innovative design takes advantage of the technology environment of the College, in which most undergraduate and many graduate students use laptop computers daily in their studies and coursework. Allowing every student in a collaborative group to easily see the screen encourages full participation in the collaboration. Faculty will more easily be able to explore the use of collaborative exercises and projects during classes to improve learning. The cost of these technology enhanced small group collaborative environments has in the past usually been high, but the new generation of relatively low-cost LCD monitors makes them much more feasible.

Budget Detail:

Tables	\$11,430
32" LCD Monitors (4)	\$4,000
Mounting Hardware	\$800
Room Modifications (Electrical, Paint, etc.)	\$5,000
Cables and Dongles	\$150
Projection System/Instructor Console	\$11,000
2008-2009 Budget Total	\$32,380

Install Collaborative Work/Presentation Areas

This project proposes the installation of two collaborative work/presentation areas for students, known as "collaboration stations". To be located in the Student Study Area in the Learning Technology Center (Sánchez Building) and the Department of Kinesiology and Health Education Student Study and Advising Area (Belmont Hall), the purpose and benefit of these stations is similar

to the Laptop Collaborative Classroom (above), but are for on-demand use by students outside of class time.

The project will utilize existing tables and requires only the installation of wall-mounted monitors with connections for laptop computers. These installations will allow students to share visual access to the screen and promote collaboration and contributions from all group members. Students will also be able to share their multimedia presentations with peers to facilitate feedback. This project provides an inexpensive solution to some of the limitations of learning collaboratively in a laptop environment and would be easily replicable in other settings.

Budget Detail:

32" LCD Monitors (2)	\$2,000
Mounting Kits (2)	\$400
Cables and Dongles	\$100
Installation	\$2,000
Security Enclosure (1)	\$3000
2008-2009 Budget Total	\$7,500

**Conference Room Presentation System for
Stark Center for Physical Culture**

H. J. Lutcher Stark Center for Physical Culture and Sports, a center within the Department of Kinesiology & Health Education, houses the Todd-McLean Physical Culture Collection. Consisting of materials related to the history of physical culture and sports collected by Kinesiology faculty Terry and Jan Todd over 33 years, the internationally recognized collection is the largest and most important such collection in the world.

Officially designated a University research center in 2006, the Center's new facilities in the north end of Royal Memorial Stadium will open in 2008. It's 25,000 square feet of space will house an archive library and reading room, rare books research area, museum and gallery space, and a large meeting room.

This room will be used for classes, seminars, conferences, private study, and research. Dr. Jan Todd will teach her graduate class in Sports Ethics (18-25 students per semester) in the room, and with the new BS in Physical Culture and Sports major that will be offered beginning in 2008, the room will be used by many undergraduate students working on projects involving the use of the collection materials.

This project will enhance this classroom's educational benefit to students by providing it with a computer presentation system. It also provides two computer workstations so that students and other users of the Center's reading room can access the collection database.

Budget Detail:

AV Interface/Inputs	\$1,000
LCD Display and Speakers	\$6,500
Touch Panel Control System	\$2,000

Programming, Documentation, Training	\$2,800
Miscellaneous Interfaces, Cabling, etc.	\$1,500
Dell Desktop Computer (2)	\$2,400
2008-2009 Budget Total	\$16,200

Infrastructure Projects

Installation of Permanent Projectors in Classrooms

Since 2003, a major goal of the College has been to provide a technology environment that encourages the growth of laptop use in a variety of settings. The number of faculty and students who own laptops continues to grow each year and the LIFE program has greatly accelerated this trend. A major initiative to achieve this goal has been the installation of projection systems in College classrooms. Twenty-two rooms have been equipped so far. The projection systems allow laptops to be used for instruction and student presentations without prior planning for projector reservation and delivery. They also reduce the need for, and delivery of, mobile presentation carts, thereby decreasing costs.

2007-2008

As stated above in the "Use of Previous Academic Year Allocations," for 2006-2007 this project received funding of \$100,000 for the installation of ten rooms. For 2007-2008, funding of \$33,000 will allow for the installation of 3 more classrooms, scheduled to be completed during the academic year.

Update for 2008-2009

The College remains committed to providing uniform installed computer projection capability in as many of its classrooms as possible, and requests funding for 2008-2009 to continue with the project to provide this capability to additional classrooms. The ultimate goal is to have projectors installed in all of the approximately 35 classrooms in the Sánchez and Bellmont buildings. The College proposes funding of \$60,000 to outfit 5 more classrooms and provide "hot spare" equipment to reduce downtime of existing installations. Three of these rooms are the Learning Technology Center computer labs in 439A, 439B, and 439C. The instructor consoles and projection systems in these labs are more than 6 years old. Replacement of these systems will provide much needed updates in these labs and provide for more consistent technology infrastructure among the College's classrooms and computer labs.

Budget Detail:

Classroom Projection Capability (5 rooms, spares)	\$60,000
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2008-2009 Budget Total

\$60,000

Upgrade of Sánchez Building Wireless Network

The College of Education has always been an early adopter of wireless technology. After providing a wireless network in the Model Technology Classroom and two moveable wireless access points in 2001, the College had full wireless Public Access Network coverage in all of Sánchez and parts of Belmont by 2002. An upgrade in 2004 increased wireless network speeds from 11 Mbits/s to 54 Mbits/s and improved coverage in peripheral areas. Now, more upgrades are needed to keep pace with technological advancements and to provide students, faculty, and staff with the speed and stability they need for their rapidly increasing reliance on the use of laptops.

This project will upgrade the Sánchez Building's 802.11g wireless network to 802.11n, increasing speeds from 54 Mbits/s to 248 Mbits/s. The number of wireless access points will increase from 27 to 68 to provide strong, stable coverage in all areas of the building.

Budget Detail:

Upgrade Wireless Network Infrastructure	\$108,000
2008-2009 Budget Total	\$108,000