

# **Technology Vision Plan**

**2002-2003**

**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**

**2002-2003**

## **Summary of Requests**

The College of Education (COE) continues to realize steady progress toward the goal of integrating computing and telecommunication technologies into all phases of its academic, research, and service functions. The College envisions all components of its undergraduate and graduate student preparation programs, including field experience, academic courses, and research, will utilize the latest computing and telecommunications technologies to maximize educational benefits, professional preparation, collaboration and research quality. The College is committed to providing the high-speed networks, technology-rich facilities, training and support necessary to achieve this goal.

The 2002-2003 College of Education Technology Vision Plan builds on progress achieved in prior-year plans. Projects proposed for 2002-2003 which enhance the student learning environment include a major update of the College's networking hardware, the replacement of all computer workstations in the Advanced Applications Laboratory, the expansion of wireless networking capability in the Sanchez Building (SZB), and the installation of new audio/video recording equipment in the Department of Educational Psychology Training and Research Observation Rooms.

Two projects are proposed to stimulate technology integration into faculty curriculum. One is a pilot program to provide salary funding and laptops to the College's academic departments, which would then solicit proposals from students to work with faculty on technology integration projects. The other would provide laptops for semester-long checkout to instructors in the teacher education Professional Development Sequence.

This plan addresses three critical needs: maintenance and upgrades to keep existing technology systems current; the creation of facilities that address new needs or take advantage of new technological capabilities; and the development of projects that improve the technical skills of faculty, enabling them to integrate modern instructional technology into a diverse and innovative curriculum.

The budget requested for 2002-2003 is **\$380,800**.

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*).

## Summary of ITAC Funding and Expenditures

ITAC funding is awarded to the College of Education in two component sums: an annual recurrent component, based on enrollment, and a project component, based on proposed technology projects. Recurrent funding is typically applied to maintenance and updating needs for student-use facilities and infrastructure, while project funding is used for the implementation of projects proposed in *College of Education Technology Vision Plans*.

ITAC funding is used to provide technology equipment and services to enhance the classroom instruction, field experiences and research of College of Education students. It is also used to provide the network infrastructure and efficient support mechanisms for these facilities and services.

### 2000-2001

ITAC allocated to the College of Education in 2000-2001:  
\$117,859 in Recurring funding, and  
\$150,000 in Project funding.

A total of \$323,017 of ITAC funds were spent in 2000-2001 on a variety of projects as well as routine equipment upgrades and maintenance.

Broken into four main categories the expenditures are as follows:

Equipment	\$226,867
Facilities	\$69,156
Network	\$24,730
Other (Services)	\$2264

Software purchases are grouped in the equipment category, including \$37,600 spent on software for classes and computer labs requested by faculty. Major equipment purchases include computers for the Model Technology Classroom, new monitors for the Advanced Applications Lab, new Dell PCs for the PC Lab and Open Area, two new scanning stations, new servers for labs and web serving, additional equipment for check-out, the digital upgrade of a Media 100 computer-based video editing system, and the creation of another digital video editing system.

Major network expenditures include the installation of a wireless network in the Model Technology Classroom, new switches for increased network capacity, and the set-up and security for a new server room.

\$69,156 was allocated to the fourth and fifth floor remodel of computer labs in the Learning Technology Center. In addition, \$145,961 was set aside for the provision of AV systems in this project.

\$2264 was spent on services such as computer repair and laptop insurance.

## 2001-2002

ITAC allocated to the College of Education in 2001-2002:  
\$118,632 in Recurring funding, and  
\$240,000 in Project funding.

A total of \$282,005 of ITAC funds have been spent so far in 2001-2002 on a variety of projects as well as routine equipment upgrades and maintenance.

Broken into four main categories the expenditures are as follows:

Equipment	\$277,348
Facilities	\$0
Network	\$0
Other (Services)	\$4657

Software purchases are grouped in the equipment category, including \$13,967 spent on upgrades and software for classes and computer labs requested by faculty. Major equipment purchases include computers and monitors for the newly remodeled Multimedia Lab, Collaborative Learning Lab and Open Lab; the projection and instructor console systems for three of the new labs; a network-attached storage device and tape library to implement a College-wide backup system; projectors and other equipment for classroom use in Belmont Hall; equipment and software to record field data and provide feedback on performance for Department of Kinesiology and Health Education students; and two digital video electronic field production units for checkout to students.

Other major equipment purchases outlined in the 2001-02 Vision Plan and scheduled for the rest of the 01-02 fiscal year include laptop computers and assistive devices for the field work of Department of Special Education students; and a portable videoconferencing unit to link the College to AISD professional development schools.

\$4657 was spent on services such as computer repair and laptop insurance, and miscellaneous technology supplies such as cables and projector bulbs.

## Learning Technology Center Fee

Although the University IT funding allows the College of Education to purchase computer and network hardware, along with its maintenance and periodic upgrade, and to construct new technology facilities, it would not be possible to provide these resources and services to students without the funding from the Learning Technology Center fee.

The Learning Technology Center (LTC) is the College-wide center that provides all technology-related resources and services for the students of the College of Education, as well as many related technical services for the faculty and staff. The LTC is responsible for the installation and daily operation of the Colleges data network and servers, ten computer labs, a videoconferencing classroom and a model technology classroom. It also provides a variety of services, including equipment checkout, instructor reserves, faculty development in technology integration, and a faculty/staff technical help service.

The Learning Technology Center Fee funds these operations, covering such items as staff salaries, facility maintenance, and non-computer equipment. This fee is assessed each semester for every student taking a College of Education course. For the past two years the fee has been \$130, and it collected approximately \$1,048,000 in 2001-2002. Currently in process for approval is a request to raise the fee to \$155, which would raise an estimated \$1, 175,675. This increase is proposed to support mandated staff salary raises and the additional staff positions needed to provide essential support for the growth in technical facilities and services.

Broken into five main categories, LTC fee expenditures for 2000-2001 were:

<b>Staffing</b>	\$690,057
<b>Equipment</b>	\$70,174
<b>Facilities</b>	\$183,033
<b>Network/Telephone</b>	\$18,136
<b>Other</b>	\$10,071
<b>Total</b>	<b>\$971,471</b>

Major equipment expenditures include projectors, digital cameras, VCR's, computer carts and other AV equipment to expand the availability of equipment for student checkout and class deliveries.

The facilities expenditures include a large portion of the funding for the remodeling of the LTC fourth and fifth floors, furnishings for these new areas and miscellaneous facility maintenance work orders.

Other expenditures include printing, equipment insurance, staff training and supplies.

# IT Projects Proposed for 2002-2003

## Data Network Infrastructure Upgrade

The College of Education proposes to renovate its existing network infrastructure in the Sanchez, Belmont, Gregory Gymnasium, and Anna Hiss buildings. The proposed hardware upgrades will dramatically improve security, performance, and stability of the network.

Current critical network hardware is twenty years old and may last only one or two more years before failing or becoming obsolete. The proposed upgrade will improve network speed from 10Mbps to 100Mbps for desktops, and closets will be improved to gigabit (1000Mbps) speeds. The upgraded network will be capable of handling bandwidth-intensive educational and collaborative applications that are currently unfeasible. In addition, current hardware must be upgraded for the College to implement new security features required by UT's Internet and Telecommunications Services to protect data stored in databases or transmitted during live network sessions.

### Budget Detail:

Gateway Switch for SZB	\$60,000
Upgrade equipment at Network Operations Center	\$20,000
Switches for node closets (18)	\$63,000
<b>Budget Total</b>	<b>\$143,000</b>

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## Improvements to Training and Research Area Observation Rooms

The Training and Research Area (TARA) consists of eight two-way mirror observation rooms that are used college-wide for classroom activities and research. They are essential for the Counselor Education, Counseling Psychology, and School Psychology programs, in which students role-play practice in individual, group and family interventions, and are observed and tape recorded for evaluative purposes. The audio and video equipment in these rooms dates to the 1970's, is unreliable and difficult to use, and produces poor quality audio and video. There is also no way for those observing outside the two-way mirrors to communicate with those inside the training rooms.

The Department of Educational Psychology proposes to rectify this situation with the purchase of video recording equipment and intercom systems for these

rooms. Installation of the equipment can be performed by College technical staff at little or no cost.

**Budget Detail:**

VHS Camcorder (8)	\$4,800
Intercom System (8)	\$1200
Tripods (2)	\$300
Wide Angle Camera Lens (6)	\$420
Camera Wall-Mount Bracket (6)	\$80
<b>Budget Total</b>	<b>\$6,800</b>

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**Three Year Pilot: Student-Initiated Integration of Technology  
in the Teaching of Technologically Novice Faculty**

The College proposes funding the first year of a three-year pilot program which will encourage technology infusion in the teaching of faculty by providing incentive for students to initiate projects with “technologically novice” faculty who use little technology in their teaching. The College hopes to leverage the technical knowledge and enthusiasm of students to help faculty integrate technology into their curriculum and learn technology skills.

Each academic department will sponsor two projects per year. Students will choose a technologically novice faculty to work with to design a technology integration project for at least one semester-long course and submit a short proposal to the faculty’s department. Proposals will be judged and awarded according to procedures designated by the department chair. Projects must include orientations for the student and faculty on the technology services and resources available in the College and demonstrate that the faculty member is capable of continuing the technology use after the project has ended.

For each project, the student will receive \$2,000 in salary and the faculty member will receive \$1,000 for materials or equipment necessary for the project. Each department will purchase two laptop computers and will loan one laptop to each project team for the duration of the project.

**Budget Detail:**

Two Projects for each Academic Department (10)	\$30,000
Laptop Computer System (10)	\$20,000
<b>Budget Total</b>	<b>\$50,000</b>

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### **Computer Upgrade of Advanced Applications Lab**

The Advanced Applications Lab (AAL) is the premiere computer classroom in the College of Education. It provides 40 stations for students, half Macintosh and half PC, in a theatre-style setting with a dual rear projection screen system and multimedia instructor's station. In addition to classes, the lab is open for general use to College of Education students and faculty.

The computers in the AAL are over three years old; they are outdated and cannot meet the high-end computing needs of this facility's users. 42 new state-of-the-art computers are proposed, 40 for student stations and 1 Mac and 1 PC for the teaching station, to allow this facility to remain the top computer facility in the College.

**Budget Detail:**

High-End Macintosh Computers (21)	\$67,200
High-End PC Computers (21)	\$56,700
<b>Budget Total</b>	<b>\$123,900</b>

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### **Expansion of Wireless Network Access in Classrooms**

The College of Education has a strong commitment to mobile wireless computing. In anticipation of increased demand by students, and to augment the current wireless capabilities of Learning Technology Center equipment, the College proposes to provide wireless network access in all of the classrooms in the Sanchez Building. Coupled with the project to renovate the network infrastructure in the College, this project will foster greater technology-based collaborative learning in the College of Education.

**Budget Detail:**

10 Wireless Access Points	\$10,000
<b>Budget Total</b>	<b>\$10,000</b>

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### **Laptops for Professional Development Sequence Faculty**

The College of Education proposes to purchase iBook laptops and make them available for checkout to the faculty who teach students in cohorts of about 25 in the EC-4 grades professional development sequence, in the following courses:

EDC 371 Guiding Young Children in Groups  
 ALD 328 Applied Human Learning  
 EDC 331C School Organization & Classroom Management  
 EDC 370E Math Methods  
 EDC 370E Science Methods  
 EDC 370E Social Studies Methods  
 EDC 371 Reading Difficulties  
 EDC 670E Reading and Language Arts Methods

The laptops would be available for semester-long checkout from the College's Learning Technology Center Equipment Checkout service to instructors or teaching assistants involved in these courses. Many of the adjunct instructors and graduate assistants involved in these courses do not otherwise have access to laptop computers. The iBook laptops will be configured in the same way as those the students will possibly use in a future lease/purchase program the College is currently working on organizing, and will allow the instructors and assistants to provide field demonstrations of technology teaching techniques and other field-based applications. It is important for the faculty to have the same technology available to them as the students, so that they can learn and properly model for students the integration of technology into instruction and curriculum.

**Budget Detail:**

Apple iBook (30)	\$48,000
<b>Budget Total</b>	<b>\$48,000</b>

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<b>Total All Projects Requested</b>	<b>\$380,800</b>
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## Appendix A

### Network Status

The College of Education and its five academic departments (Curriculum & Instruction, Educational Administration, Educational Psychology, Kinesiology and Health Education and Special Education) have office, classroom, and research laboratory space in six buildings on the UT Austin campus. College network infrastructure has been installed and routinely updated in four of these buildings. A brief outline of the network status is shown in the table below:

<b>Campus Building</b>	<b>Network Status</b>	<b>Wiring Status</b>
George I. Sanchez (SZB)	Mostly Hubbed 10 Mbps	Mixed CAT 3 and 5e
Anna Hiss Gym (AHG)	Mostly Hubbed 10 Mbps	Mixed CAT 3 and 5e
Bellmont Hall (BEL)	At Least Switched 10 Mbps	Mixed CAT 3 and 5e
Gregory Gym (GRE)	At Least Switched 10 Mbps	Mixed CAT 3 and 5e

As described above in the proposed project “Data Network Infrastructure Upgrade,” the College of Education plans to renovate its entire network infrastructure in 2002-03. The upgrade will improve network speeds and allow the use of bandwidth-intensive educational and collaborative applications. It will also allow for the implementation of required new data security features.

The College administers 13 servers that provide such services as an intranet mail system, data storage and backup, web services and computer lab support.

## Appendix B

### Computer Laboratory Status

The College of Education has ten computer labs in the Sanchez and Belmont buildings, equipped and configured in a variety of ways to meet the many needs of its five academic departments. These labs are installed, maintained and operated by the Learning Technology Center staff. Several feature projection and remote-control capabilities and can function as computer classrooms. Others, such as the UTeach Science and Math Lab and the Assistive Technology Lab have specialized equipment to meet specific subject area-related needs.

The College also has two other specialized technology facilities. The Distance Learning Classroom provides two-way interactive audio and video communications to sites around the world via the UT video network, telephone, satellite or webcast. The Model Technology Classroom is designed to allow the demonstration of new and exemplary practices in the integration of technology into instruction and features a rear-projection SmartBoard, plasma display panels, instructor console with remote control touchscreen, flexibly-arranged seating, and a fleet of iBook laptops with both wired and wireless networking.

Workstations in these labs are generally replaced every three years, so that students always have access to current equipment. The College also has plans for network upgrades and expanded wireless networking to ensure that students are offered the most up-to-date technologies possible.

- **SZB 316:** UTeach Math and Science Lab; 20 stations, PC
- **SZB 323:** Distance Learning Classroom
- **SZB 324:** Advanced Applications Laboratory; 40 stations; 20 Mac, 20 PC
- **SZB 439:** Open-Use Student Laboratory; 12 stations; 6 Mac, 6 PC
- **SZB 439A:** Multimedia Research Laboratory; 20 stations; 10 Mac and 10 PC
- **SZB 439B:** Central Macintosh Laboratory; 30 stations, Macintosh
- **SZB 439C:** Collaborative Learning Laboratory; 24 stations, PC
- **SZB 439E:** Model Technology Classroom; 25 laptops, Macintosh
- **SZB 518C:** PC Laboratory; 23 stations, PC
- **SZB 518E:** Assistive Technology Laboratory; 7 stations; Macintosh and PC
- **SZB 536:** Open-use Student Laboratory; 20 stations; Macintosh and PC
- **BEL 844:** Kinesiology Laboratory; 13 stations; Macintosh and PC

## **Appendix C**

### **Classroom Technology Status**

The College of Education's Sanchez Building contains over 40 classrooms, conference rooms and other teaching spaces, twelve of which are General Purpose Classrooms, and one auditorium seating 129. Belmont Hall, housing the Department of Kinesiology and Health Education, has ten classrooms and one General Purpose auditorium seating 274. General Purpose classrooms are scheduled through the Registrar's Office. Responsibility for the technology maintenance and operation of General Purpose rooms was taken over by the College from the Telephone Services Multimedia Group in 2001. The other classrooms are controlled and scheduled by the College's five academic departments.

Most College classrooms have data network connections and contain an overhead projector and screen. Five are equipped with secured multimedia carts containing a projector, computer, laptop connection, document camera, VCR and speakers.

Instructors teaching in College classrooms can reserve additional equipment and have it delivered, set up, and removed at class end. Equipment available includes: a portable computer lab of 25 iBooks and wireless network port; six computer/projector carts; six additional projectors, 14 laptops, eleven TV/VCR carts, and a variety of other traditional AV equipment.

As described above in the proposed project "Expansion of Wireless Network Access in Classrooms," the College plans to provide wireless networking in all classrooms during the 2002-03 year. An update of the projection system in the Sanchez auditorium with an instructor-operated multimedia console is planned through a request for special ITAC funding in collaboration with the Colleges of Liberal Arts and Pharmacy. Also in the planning and design stages are the construction of a technology-rich classroom and anatomy lab for the Department of Kinesiology and Health Education in Belmont Hall.

## **Appendix D**

### **Curriculum Innovation Status**

The College of Education strives to create a culture in which technology integration is the norm and part of the College's identity. Many programs and activities within the College promote and support innovation in the curriculum.

The Dean's Faculty Technology Integration Award encourages and recognizes faculty efforts in technology integration in teaching. Each year, one award per department is made to faculty who propose noteworthy projects, and includes funding for equipment and software, a research assistant, and travel to conferences to describe the project.

In 2000, the Learning Technology Center established the IDEA Studio, a support group to provide assistance to faculty with technology integration. Faculty can get help to use the web, multimedia and online communications to enhance their teaching, transform their courses and streamline their research. A Computer Publications Specialist has been hired in the last year to improve the College web sites and to provide new capabilities such as online databases and surveys and the secured use of confidential information.

Several grant projects encourage technology integration in the College and beyond. Project INSITE, a PT3 Department of Education grant, supports the UTeach Program in math and science education by providing technology tools and training to teacher educators in the college and to mentor teachers in AISD. The Technology Leadership Academy, another DOE PT3 grant, fosters technology infusion in teacher education institutions in a four-state area.

The Department of Curriculum & Instruction is now working to ensure that technology is integrated into all preservice courses and that students graduating in teacher education have the technology skills set forth in state standards.

Some College initiatives put technology directly in students' hands. The Dean's Technology Cohort Program loans a laptop to education students in their professional development year. They are able to use the laptop in their student teaching, course research, and to communicate and collaborate with classmates, instructors and cooperating teachers. This program began in 1997 and serves 50 students this year. The College believes so strongly in this type of program that it is currently exploring the feasibility of a laptop lease/purchase program that would require all teacher education students to have a laptop computer.

Technology initiatives are also aimed at graduate level courses. College faculty have designed and taught web-based courses for the University of Texas System UT TeleCampus Masters of Education in Educational Technology. Innovative online collaborative learning methods have been developed and used in these courses.