2000-2001 Vision Plan for Information Technology

The University of Texas at Austin
School of Nursing

November 1999

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Executive Summary

The focus of the School's instructional technology goals and objectives is to encourage and facilitate the competent use of technology in faculty and students' professional and scholarly tasks, preparing them to teach and practice nursing in the future healthcare system. Primary among our objectives is to provide state-of-the-science technology for faculty and student, to improve the teaching and learning activities through the innovative use of technology, and to assist faculty and student to see technology as yet another tool to improve nursing practice, teaching, and research.

The School has made steady progress in meeting our information technology objectives. For example, approximately half of the faculty and all students have ready access to computers with adequate power. This is not where we want to be, but the situation is improving over the years. Although power at their desk is often less than desired, faculty do have access to talented staff with state-of the-science equipment to help them create and produce instructional materials. New resources such as catechism (VR instructional tool) and Nightingale Tracker (Community Health student/faculty communication and charting system) have been acquired for use with students.

These projects were identified for the next academic year: 1) network augmentation, 2) large classroom audiovisual control system redesign, and 3) bedside charting simulation upgrade.

Project #1: Network Augmentation Project

The vision, mission, and goals of the School of Nursing focus on providing users resources and support to become full-fledged members of the electronic community. Fundamental to achieving these goals is providing faculty, staff, and students with a dependable, up-to-date infrastructure. Project #1 includes equipment and software needed to complete next stage of upgrades.

This project will serve the entire School: students, faculty, and staff. Instructional activities as well as administrative functions will benefit from a secure, efficient network

Upgrading the School's infrastructure with the needed components will cost approximately **$12,600**.

Project #2: Large classroom audiovisual control system redesign.

The audiovisual control systems in the large, tiered classrooms and the multipurpose room are at present collections of hardware, software, and electronics of various vintages. In addition to being difficult if not impossible to service the system, the system presents users with multiple problems: 1) complex controls, 2) poor control of lighting, 3) feed back, and 4) safety hazards due to poor storage of cables. The limitations of these classrooms do not facilitate faculty and students success in the use and/or experimentation with innovative, technology enhanced instruction.

We wish to undertake a major redesign of these classrooms. **$209,100.00** is needed to

upgrade the sound and audiovisual control system of these six teaching spaces.

Project #3: Bedside Charting Simulation Upgrade

The charting systems in the Simulation Lab are in need of upgrade. The original system, BedCom®, was installed in the early 90's. This system was connected by modem to a training module in Grand Prairie, TX. As the software was upgraded we moved to an independent system that was served by a 486 to six bedside terminals in two of our three individual simulation classrooms. This system has served our purposes over the decade. Now, the BedCom® system is in grave need of upgrading.

The third simulation laboratory is equipped with Meditec® charting system. Over the last academic year, South Austin Hospital has changed the method by which they wish us to access the training module. We will no longer access the system by an ISDN line; instead, we will use phone lines and modems. New equipment is necessary in order to continue to have this charting system available for students.

Total costs for updating and/or changing to the necessary equipment is **$16,987.00**

Total 2000-2001 Vision Plan request is $238,687.00

Information Technology Vision Statement, Mission, and Goals Of The University of Texas at Austin School of Nursing

Vision Statement: The vision for information technology (IT) in the School of Nursing is that all students, faculty, and staff learn, teach, and conduct School and professional business independently and efficiently without regard to time or place. Specifically:

Student, faculty, and staff are competent, comfortable users of information technology;
Appropriate technological and educational support are available to all students, faculty, and staff;
SON administration, faculty, staff, and students appreciate, understand, and use information technology in all aspects of nursing practice, education, and research;
Faculty and staff are leaders in the innovative use of information technology in nursing practice, education, and research; and
The University community understands the role of information technology in nursing and health care.

Mission:

Enable students, faculty, and staff to exploit technology for communication, collaboration, and information management.

Goals for 2000-2003 with statements reflecting progress toward goals and objectives identified for implementation during the 2000-2001 academic year:

1. **Students will have access to state-of-the-science technology.**

   Evaluation of progress toward goals: The School furnishes approximately 1 state-of-the-science computer for every 20 students. In addition to equipment, the newest instructional CD-ROMs, virtual reality machines, and application programs are available to students. Much progress has been realized in providing access to on-line nursing resources and full-text journals.

   Objective for 2000-2003: Update and perfect classroom environment especially as it facilitates the use of multimedia. (Projects # 1, 2, and 3)

   - Perfect the School's infrastructure to support innovative instruction
   - Redesign the large classroom audiovisual/multimedia control system
   - Redesign the implementation of bedside charting in the simulation classrooms

2. **Faculty and staff will have access to adequate computing resources on their desks.**
   Evaluation of progress toward goal: Faculty and staff computing resources are being updated, but this is still an area of great need. A recently completed survey revealed that 42% of faculty have sub-Pentium or sub-PowerMac computers, 39% have Pentium I or PowerMac grade computers, 18% have Pentium II or G3 computers, and no faculty have state-of the-science, Pentium III or G4 machines. This is a great barrier to faculty as they attempt to incorporate more IT activities into their teaching, research and service to the students and profession.

· **Faculty and staff will have access to state-of-the-science technology within the building.**
   Evaluation of progress toward goal: There is no state-of-the-science technology within the building dedicated exclusively to faculty. Staff with equipment and software that approach state-of-the-science are available to faculty. Upgrading faculty equipment and software is a continuing challenge.

4. **Students, faculty, and staff will possess a basic set of skills in information technology and computer use.**
   Evaluation of progress toward goal: A smorgasbord of instructional programs is designed and presented for students, faculty, and staff each semester. In addition we encourage attendance to educational opportunities in the University community. Students, faculty and, staff are building stronger IT skills. We continue to work on a method to measure the level of IT skills to identify areas that need improvement.

5. **Faculty and students will be challenged to incorporate new technology into their professional and scholarly activities.**
   Evaluation of progress toward goal: Increasing numbers of faculty are using multimedia strategies in their courses. Syllabi are being added to the SON web page. Faculty are beginning to use on-line testing software. The School's web server was put into service this year. Faculty and students are beginning to use it as an additional way to share instructional materials and other resources.
   The Nightingale Tracker®, a community health communication and data management tool was purchased this academic year and is being implemented in one clinical section of the Community Health Nursing Course. We are participating in evaluative research being conducted by the software developers.
   We received an IdeaBoard® this semester and will be incorporating this tool into appropriate courses.
   Clinic-based charting software has been purchased and is being installed in the Community Women's Wellness Clinic, one of the Schools Nurse-managed clinics. This will be used with undergraduate and advanced practice master's students in their clinical practice labs.

   Objective for 2000-2003: Create and upgrade opportunities and resources for innovative instruction. (Projects 1, 2, and 3)
   - Perfect the School's infrastructure to support innovative instruction
   - Redesign the large classroom audiovisual/multimedia control system
   - Redesign the implementation of bedside charting in the simulation Classrooms

6. **Accurate, timely technical consultation will be available to students, faculty, and staff.**
   Evaluation of progress toward goal: Two full time staff and 60 hours of TAs are available for students, faculty, and staff. As they grow in their ability to use IT their need for assistance grows. Additional IT staff are needed to meet the growing requests for assistance.

7. **Information technology content will be integrated into the curriculum.**

Evaluation of progress toward goal: As faculty build more IT techniques into their courses, students are encouraged and required to participate in e-mail communications, listservs, and Internet activities as a part of their course work. Since students in the professional sequence (junior and senior years) have little time for 'non-nursing' requirements, greater emphasis on building basic computer/ informatics skills is being made with the prenursing students in the prerequisite courses.

Progress has been realized in implementing automated charting system and clinic management software (PracticePartner®) in the Community Women's Wellness Center, one of the School's nurse-managed clinics. This will provide important information technology applications and examples for students.

Objective for 2000-2003: Redesign the implementation of bedside charting in the simulation lab (Project 3)

- Redesign the implementation of bedside charting in the simulation classrooms

8. **Resources will be identified and allocated for acquisition, support, enhancement, maintenance, and protection of technology.**

Evaluation of progress toward goal: The majority (estimated at 75%) of IT improvements are as a result of ITAC and Vision funds. School allocates monies for IT needs as funds are available, but these sources are not dedicated for IT purposes. No new sources of funds from School resources have been identified or are anticipated.

An extensive security system was installed this year in all areas with vulnerable IT and clinical equipment.

- **The University community will be informed of the role of information technology in nursing and health care.**

Evaluation of progress toward goal: The School of Nursing participated in UT Interactive. This event showcased many IT demonstrations about School programs and instructional methods that were shared with the University and larger communities.

Facility and Staffing

Since the early 90's when the original Vision plan was submitted, the School has realized consistent growth in instructional technology resources.

Infrastructure:
All faculty have desktop computers that are networked by four SON servers. All have access to the Schools intranet, e-mail, Internet, and FTP resources—although many faculty computers (approximately 42%) are unacceptable slow. We are in the process of upgrading equipment and network capacity as resources are available. All classrooms have been wired with network access, which are being activated as the demand grows. Having introduced faculty and students to new resources, there is a great demand for more access, larger storage capacity, more training opportunities, and faster machines. The weakest links in IT resources are the lack of computing power on faculty desks and staff's inability to respond fast enough to students, faculty, and staff technical and educational needs.

A recent analysis of inventory data revealed that 42% of faculty have sub Pentium or sub PowerMac computers, 39% have Pentium I or PowerMac grade computers, 19% have Pentium II or G3 computers, and no faculty have state-of the-science, Pentium III or G4 machines. This is a great barrier to faculty as they attempt to incorporate more IT activities into their teaching, research, and service to the students and profession.

IT Staff
Two full-time staff members and there (3) 20-hour teaching assistants make up the Computer

Assistants Team. The head of the team is a Senior LAN Administrator, the other full-time staff member is a LAN Administrator. The School of Nursing also has a production staff consisting of a graphic artist and a radio, television, film (RTF) person. Both of these individuals are highly skilled in information and instructional technology and provide valuable computer graphic design and production services for the school Furthermore, an important responsibility of the RTF person's role is that of the School's web master.

We are in the process of nurturing a 'web representative' in each of the School's departments. These individuals will be trained to create instructional materials that will be distributed by the web, to assist in the maintenance of parts the School's home page, and to serve as a 'consultant' to the faculty with whom they work.

Access to Computers:
Students gain access to computer resources through the Learning Center (LC) and the Research Computer (RC) Labs.

Learning Center (LC) Computer Resources:

Computer Classroom consists of 12 computer workstations and a teacher station. Ten are Dell Pentium IIs (83%). Two are Macintosh G3s (17%). All computers, managed by LabManager software, have a full complement of software needed by students and Internet access.

A general use computer facility provides students with 15 workstations (PowerMac 8500, G3s, and Pentium IIs), one graphic workstation (G3 with full graphic capabilities, scanner, film recorder, and printer), two computer-video interactive stations, and other traditional audiovisual stations: VCR, slide projectors, and audio tape players. A Pentium II PC with a graphic accelerator card houses a virtual reality application, CathSim®, that provides students with practice on venipunctures.

Research Computer (RC) Lab:

The RC Lab has 8 workstations (primarily Pentium IIs and G3s) with software needed by graduate students learning about and conducting original research. Some of the computers are older models required to run platforms needed by the software used by student researchers. Software such as SPSS, SAS, Ethnograph, NudIST, Teleform, and Lisrel are examples of applications available.

Other LC resources with IT implications.
•**Simulation Lab** features three clinical simulation classrooms with computerized hospital information systems (HIS) used in local facilities. Two labs have BedCom®, the HIS formerly used by Seton. Vision funds purchased the bedside computer units. Seton Network donated the software and tech support. Seton abandoned the BedCom® System and is now considering the adoption of SMS Point of Service System. We estimate that Seton's decision and installation is at least 2 years away. Although the School will consider adopting the same system after Seton commits, we still need to provide some type of experience with electronic charting to students in the interim. We will continue to use the old BedCom® system, as it appears to be the only option at this time.

As noted in another area of this plan, the School has just purchased PracticePartner®, a community health clinic management and patient record system. This software may be an answer to our need for a charting system in the simulation lab. We may be able to serve this software to the workstations in the simulation lab providing a method of recording episodes of patient care without jeopardizing the security of patient data in the Women's Wellness Center. This will be under study over the next several months as we begin to use the software in the clinic and see if it will meet the needs of the students in the skills lab courses.

Meditec® hospital information system (HIS) is used in the third simulation classroom, through a

cooperative effort with South Austin Medical Center (SAMC). The arrangement with SAMC whereby the School uses this software is in transition. Where we originally had access their training server through an ISDN line, SAMC is now requesting that we change to modem access. In order to implement this change, faster computers with internal modems, phone lines and jacks are needed to replace the 486s.

•**Reference Area or Audiovisual Library** houses the School's reserve collection, models, and clinical equipment available for student checkout. This area assures timely access to computer assisted instruction programs and supports students with literature and Internet search capability. This academic year a barcode scanning system is being installed to provide better control over the circulation of instructional and clinical materials.

•**Production Facility** provides a graphic artist, a production manager, and a full array of design and graphic tools. The production staff produce or help users learn to produce multimedia presentations, posters, newsletters, logo design, slides, HTML documents, and promotional materials for various programs of the School. This department also is responsible for the design and maintenance of the School's web page.

Classrooms:

Tiered Classrooms:

The School has one fully equipped technology classroom that supports two-way audio, video, data capabilities, and computer-driven multimedia equipment. In the summer of 1997, four additional tiered classrooms were upgraded to facilitate multimedia projections. During fall 1997, blackout curtains were installed in 4 classrooms (5.180, 5.178, 4.102, and 4.183) to facilitate the use of computer projection equipment. Two classrooms (1.106 and 1.108) have ceiling mounted projection facilities. Others are served by portable projection equipment. All rooms have Ethernet connections that are being activated as needed.

The maintenance and repair of the tiered classrooms is getting increasingly difficult due to the age and mixture of technology installed. Project #2, (Large classroom audiovisual control system redesign), is being proposed to upgrade the classrooms to facilitate faculty and student use of multimedia equipment.

Multipurpose Room:

The Multipurpose Room is a large, flexible teaching space that is used primarily for large class and all-School activities. The facility was used for Continuing Education program; however, due to funding problems the Continuing Education program was discontinued October 1999. The utilization of the multipurpose room is in transition. To serve as a teaching space, the audiovisual equipment and control system needs to be upgraded. The redesign of this space will be studied/proposed along with the tiered classroom project #2, (Large classroom audiovisual control system redesign).

Other School of Nursing Computing Projects

Network between School of Nursing and School's Remote Nurse-Managed Clinics:

The School sponsors two nurse-managed clinics: the Community Women's Wellness Center and the Children's Wellness Center. In addition to providing much needed services to selected populations, the clinics provide invaluable clinical sites for student experiences. These clinics demonstrate nursing roles and the technology of tomorrow's health care system. Software, PracticePartner®, clinic management and patient record software, was purchased for the Community Women's Wellness Center. The software was purchased by one of the grants that funds the clinic, and the equipment was purchased by student ITAC funds. As soon as the Children's Wellness Center moves into its new facilities the change to PracticePartner® will be considered.

Distance Education Initiative:

The School's vision includes initiatives that will deliver informal and formal courses to nurses in

their place of work both in the Austin and the Central Texas area, helping nurses who want to upgrade their education but must continue to work full-time.

A project to create courses for registered nurses returning for the BSN is under study. This program would create and deliver various types of instructional activities (for credit) to students via Internet.

Research Program:

The faculty have successfully competed for a total of approximately $8 million of extramural research funding that will be funded during the next five years. All programs depend heavily on technology to support collection, management, analysis of data, and dissemination of findings.

School's Data Management Project:

The School has undertaken a project to use mainframe data to facilitate administrative decision-making processes. A consultant was engaged to construct a locally managed database (FileMaker Pro) to analyze data (collected, managed, and stored remotely) including student demographics, course information, and GPAs, to improve course planning and to provide data for grant writing efforts.

Proposed Projects/titles

ITAC eligible activities (priority order)

Project #1: Infrastructure Augmentation

The vision, mission, and goals of the School of Nursing focus on providing users resources and support to become full-fledged members of the electronic community. Fundamental to achieving these goals is providing students, faculty, and staff with a dependable, up-to-date infrastructure, with timely maintenance, replacement, and upgrade of infrastructure components. This project serves the entire School: students, faculty, and staff. Instructional activities and administrative functions benefit from a secure, efficient network.

Resources, Equipment, and Software Needed to Accomplish Project Goals:

Item	Cost per item	Cost
Cisco Switches	4 @ 1,900	$7,600
Cisco 100MB router	1 @ 2,500	2,500
Network monitoring software	1 @ 2,500	2,500
TOTAL		**$12,600**

Installation of equipment, technical support, and future maintenance would be supplied by the School of Nursing with oversight by the School's LAN Administrator. Funding will be drawn from several accounts: School's MO&E, Student Information Technology Funds, and the LC's MO&E accounts.

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Project #2: Large Classroom Audiovisual Control System Redesign

The large, tiered classrooms are a mixture of technologies of various vintages. Repair is now difficulty if not impossible. We are planning a major upgrade of the entire sound and multimedia (MM) control systems in the five tiered classrooms and one multipurpose room. Matching systems in all large teaching environments is important to facilitate faculty use of the equipment and encourage their continued growth in skills using MM strategies.

The upgrade of these rooms would benefit the entire student body. Other University units who use these rooms, such as the Office of Admissions for Longhorn Saturdays would benefit from the upgraded capabilities and the more user-friendly controls.

Dr. Kurt Bartelmehs, Coordinator of Computational Resources for the College of Natural Sciences, assisted us with the design and estimate of the renovations.

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Item	**Cost per item**	**Cost**
9250 LCD Proxima Projector 2000 lumen XGA	1 @ 8000	$8,000.00
Crestron Control system G4 with LCD monitor	1 @ 3,500	3,500.00
SVHS VCR	1 @ 350	350.00
Samsung document camera	1 @ 5000	5,000.00
Sound system Wireless microphone ($500) Mic mixer ($400) Speakers ($1000 pair) 300 watt amp ($800) EQ ($300)	1 @ 3,000	3,000.00
Console construction (Will be modifying existing podium)	1 @ 2,500	2,500.00
8x4 Matrix Switcher	1 @ 2,500	2,500.00
Cables and Installation	1 @ 10,000	10,000.00
TOTAL FOR ONE ROOM		**$34,850.00**
RENOVATION OF 6 ROOMS		**$209,100.00**

There could be a savings on this estimate if the six rooms are done at once.

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Project #3: Bedside Charting Simulation Upgrade

An important part of the undergraduate nursing program is the clinical simulation lab. Four courses in the professional sequence and one in the graduate program involve required clinical practicum courses in which students are exposed to patient care procedures and allowed to practice before carrying out the procedure in actual clinical settings. These courses are: N224, N127, N157, N167, and N386J. The courses involve all students in the undergraduate and graduate programs. In addition to the actual time in class, students often return for open practice hours for review and more practice.

Staff work to make the lab as much like the acute care setting as possible as we believe that 'realness' in the practice setting contributes to learning.

One component of the environment that simulates the real situation is the charting system. The simulation classrooms have employed two different types of charting systems:

BedCom® (Seton Network) and Meditec® (Columbia Network). These electronic charting systems were selected because they were used in area facilities. The former, BedCom®, is no longer being used by Seton Network, and we will continue using it only until Seton selects its new software.

Both charting systems are in need of upgrade. The new equipment (listed below) would be installed in existing space and serviced by existing staff. There is no prospect of cross-departmental involvement due to the uniqueness of this project to the nursing curriculum.

BedCom® Software in Simulation Rooms 4.118 and 4.120

The original charting system, BedCom®, was installed in or around 1990. The original system was connected by modem to a training module in Grand Prairie, TX. As the software was upgraded we moved to an independent system that was served by a 486 to six bedside terminals in two or our three simulation classrooms. This DOS-based software, still being used, has served our purposes in a VERY reliable, dependable manner over the decade. But we MUST upgrade to newer technology, if current hospital technology is to be accurately represented in this environment. We are considering moving to PracticePartner® software in the future, and using it permanently or until Seton commits to a new HIS.

Resources, Equipment, and Software Needed to Accomplish Project Goals:

Item	**Cost per item**	**Cost**
Practice Partner software (USE UNDER STUDY)	6 @ 1,800 per workstation	$10,800.00
Dell PC Pentium II W/ 17 in Monitor, 133Mhz or better 32 MB RAM, Ethernet card,	6 @ 1,500	9,000.00
Printers (networkable)	2 @ 1000	2,000.00
TOTAL FOR ONE ROOM		**$11,800.00**

(Without Practice Partner software at this time)

Meditec® System in Simulation Room 4.108

The third simulation laboratory is equipped with Meditec® charting system. Over the last academic year, South Austin Hospital decided that they did not want us to access the training module by an ISDN line in the future. Instead, they want us to use phone lines and modems. New equipment is necessary in order to continue to have this charting system available for students.

Resources, Equipment, and Software Needed to Accomplish Project Goals:

Item	**Cost per item**	**Cost**
Dell PC Pentium II W/ 17 in Monitor and internal modem	3 @ 1,500	4,500.00
Phone jacks installation	3 @ 39.00	117.00
Phone Trip and order charge	1 @ 39.00	39.00
Phone line	3 @ 14.75/month	531.00
TOTAL FOR MEDTEC® ROOM		**$5,187.00**

Software will be donated by South Austin Medical Center

TOTAL FOR ALL SIMULATION CLASSROOMS **$16,987.00**

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Non-ITAC eligible activities (priority order)

Project #1 Faculty Workstation Upgrades

Life-cycle funding for faculty and staff computers is a difficult task. We never seem to have enough power (memory, chip speed, and hard disk space) on faculty and staff workstations.

A recently completed survey (N=67) revealed that 26 (42%) faculty have sub-Pentium or sub-PowerMac computers, 24 (39%) have Pentium I or PowerMac grade computers, 12 (19%) have Pentium II or G3 computers, and no faculty have state-of the-science, Pentium IV or G4 machines. This is an unacceptable situation.

At this time, we should replace the 26 Quadras and Performas. Replacement of 50 workstations would begin, what should be, our yearly life-cycle replacement schedule—replacing faculty computers every three years.

Since our faculty are 70% Macintosh and 30% PC our replacement schedule would look like this:

Item	Cost per item	Cost
Macintosh/ PC	35 @ $2,500	$87,500
PC	15 @ $2,500	37,500
Software	50 @ $200	$10,000
TOTAL		**$135,000**

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Project #2 Technology Enhanced Instruction Initiative

The School's vision includes initiatives that will deliver technology enhanced instruction to nurses in their place of work both in Austin and the Central Texas area, helping nurses who want to upgrade their education but must continue to work full-time. Release time for faculty and teaching assistants with multimedia design skills are needed to design and produce instructional materials.

Item	Cost per item	Cost
Release time for faculty (three summer months)	3 months @ $15,000	$15,000
Teaching Assistants 20 hour/week	3 @ $7,500/sem	$22,500
TOTAL		**$37,500**

College Instructional Technology Funding Overview and Life Cycle Methodology

The majority of information technology expenditures come from the student Information Technology and Vision Funds. When equipment and software upgrades are purchased for student use, the older equipment is cascaded to faculty or staff.

During the 1998-1999 academic year, an additional $35,000 from special equipment, the Dean's

discretionary, research accounts, and other School accounts was used to upgrade faculty and staff workstations.

Life-cycle methodology in the School of Nursing is based on the trickle-down effect. When new computers are purchased, the pieces of equipment replaced are moved to the next faculty or staff in need. Priority is based on tenure status, seniority, work vital to the mission of the School, and faculty member's progress in using multimedia in courses.

The goal is to replace student-available machines frequently so as to have the latest technology available to them; ideally, this means a 3-year life cycle for the machines. Faculty research machines should be replaced every 2-3 years; administrative staff machines should be replaced every 3-4 years.

APPENDICES

Appendix A

1998-1999 Annual Technology Funds Annual Summary Report

The School of Nursing received a total $105,000 ($25,000 and $80,000) from the University-wide information technology fee during the 1998-1999. A total of $15,333.01 was brought forward from the 1997-98 fiscal year and a total of $110,008.43 was spent with $3,404.09 left in the account at the end of the 98-99 fiscal year.

Brief Description of ITAC Eligible Projects:

Project #1: Infrastructure Augmentation
Original Budget: $91,140.00 Amount Expended: $78,583.00
The vision, mission, and goals of the School of Nursing focus on providing users resources and support to become full-fledged members of the electronic community. Fundamental to achieving these goals is providing dependable, up-to-date infrastructure and maintenance, replacement, and upgrade of infrastructure components.

During the 98-99 fiscal year the schools' network was significantly upgraded. All AppleTalk connections have been replaced with Ethernet connections. Further, most 10MB lines have been replaced with 100MB Ethernet lines.

All computers in the student research lab have been upgraded to Pentium II grade computers. Research software such as Teleform has been upgraded to the latest Internet compatible version.

The network running the student computer classroom and general user facility in the Learning Center has been upgraded with a newer and faster server. Upgrades of two-thirds of all student computers and the network connections (from 10Base T to 100MB) have been accomplished.

Much progress has been realized in the area of access to on-line full-text journal subscriptions. Together with the PCL staff and other schools of nursing in the State, we have subscribed to three different nursing/health full-text collections. This has added a world of resources to students at their desk in the school or at home.

During the 98-99 academic year, $17,000 worth of security has been added to the student labs,

large classrooms, server rooms, and clinical simulation labs--all rooms with vulnerable IT installations.

Project #2: Fiber Optic Feed to School of Nursing

Original Budget: $6,876.00 **Amount Expended: 0**

The School has a technology classroom that currently has a coaxial broadband connection. While this connection to UTNet is adequate for current applications, a faster fiber optic connection would assure a higher quality data feed, permit simultaneous feeds for concurrent classes, and provide faster data feeds for digital library connections that are becoming available to students and faculty.

We are still in the process of investigating the type of fiber and equipment that is needed to bring this resource to the School. Because of our distance from the campus a special fiber and equipment may be required.

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Project #3: Research Computer Lab Carrels/Furniture Redesign

Original Budget: $5,500.00 **Amount Expended: 0**

The Research Computer Lab, used primarily by master's and doctoral students in the School of Nursing, needs computer carrels to accommodate the larger computer workstations, mouse action, study materials, and data print outs. Present furniture was designed to accommodate mainframe terminals.

This project is still under study. The design and arrangement of the research computer lab is still being discussed.

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Project #4: Multipurpose Room Renovation

Original Budget: $23,740.00 **Amount Expended: 0**

The Multipurpose room is a large, flexible room that is used for all-school gatherings, large course examinations, and for continuing nursing education programs. This facility is in great need of renovation. The room no longer supports newer instructional methods such as multimedia presentations. During the 1998-1999 academic year, the Continuing Education program was discontinued. Because of this major shift in the programs of the School, we decided to reassess the future uses of this space.

Appendix B

Infrastructure Summary and Technology Classroom Inventory

The School of Nursing infrastructure currently consists of 8 hubs, 4 switches, and 1 router providing 100MB or 10MB Ethernet connections to 6 servers and some 150 workstations throughout the building. The servers include: 1) a file server for the Learning Center; 2) a file server for the School in general which doubles as a School web server; 3) a mail server handling standard Internet-based e-mail for all School faculty and staff; 4) a file server for Intranet-based on-line tests; and 5&6) two

servers handling Learning Center student logons, printing, and workstation profiles. Workstations are 85%-90% Macintosh computers and 10% to 15% PC using Windows 95 or Windows 98. Workstations for students' labs are generally 3 years old or less and there are orders in process to replace the oldest machines in this group. Following this upgrade, all student workstations will be less than 2 years old. Approximately 50% of faculty workstations are adequate; however, many are at the end of their useful life and should be replaced. It is estimated that 25 computers (sub 486 and sub PowerMac grade computers) should be replaced immediately. The typical staff workstation is less than 1 year old and should last another 2 years before replacement is considered.

Installation and deployment of one additional server that will house PracticePartner®, the clinic management and patient record software serving 3-5 workstations in the Community Women's Wellness Center, is underway.

Goals for future network development include School-wide deployment of 100MB Ethernet to all servers and workstations (half has been accomplished in 1998-1999); upgrade of the feed from the Network Operation Center to the School to fiber optic (with the upgrade of necessary routers); upgrade of all faculty and staff computers to PowerMacs or Pentium machines or better; improvement of student data tracking in the Student Affairs office; and deploy network asset management and workstation configuration software.

TECHNOLOGY CLASSROOM INVENTORY
NUR 1.106

Equipment	Use
Apple Power PC 6500/250	Displays PowerPoint presentations, graphics, or other computer generated multimedia used for instruction
Elmo Document Camera	Displays documents, graphics, or objects on the large screen projector
Shure LX Wireless Microphone	Allows audibility for our more soft-spoken presenters
Electrohome RGB Projector	Projects images from either the VCR, computer, document camera, or TV source
Buhl 2900 Overhead	Displays transparencies
2 Sony CCD cameras with Remote CCU's	Tapes classes and presentations. One is controlled remotely from the control room
Panasonic Switcher	Makes source decisions while taping classes. It has some basic wipe and dissolve patterns
Mackie Sound Board	Controls the sound level in the classroom and the level going to tape
JVC VCR	Plays video tapes for presentations and record classes and presentations

Television Demodulator	Receives TV signals from the NOC and decodes them for display on the projector
Panasonic monitors	Monitors control room activities & for presenter to see remote students or student images
Kodak Ektagraphic Slide Projector	Projects film slides

Appendix C

The University of Texas at Austin
School of Nursing

Information Technology Strategic Plan
2000-2003
Reviewed/Revised November 1999