

School of Nursing
2004 Vision Plan for Information Technology
April 2004

Introduction

This report outlines the proposed projects, acquisitions, and/or upgrades for student IT resources within the School of Nursing that are underway or awaiting funding.

The focus of the School's instructional technology (IT) goals and objectives are detailed at <http://www.nur.utexas.edu/it-ni/ltstratplan.htm>, our 2003-5 Nursing Informatics and Information Strategic Plan. Briefly, our objective is to encourage and facilitate the inclusion of instructional technology and nursing informatics concepts in the curricula. Further, we aim to promote the competent use of technology by faculty and students, preparing them to teach and practice nursing in an increasingly technology-based health care system. Therefore, we want to provide sufficient computing power and resources to enable teaching and learning activities that foster the innovative use of technology and assist faculty and students in viewing technology as yet another tool to improve nursing practice, teaching, and research.

Summary of 2004 Projects

The projects to be addressed during the next academic year include 1) continuing to upgrade classroom environments to facilitate innovative teaching strategies, 2) incorporating wireless technology into selected areas in the nursing building, 3) completing our digital video project, and 4) installing a board room-style videoconferencing facility. A total of \$153,500.00 is requested to facilitate these projects.

1. Classroom environment

Requesting \$83,000

The School of nursing has 5 large tiered classrooms with fixed auditorium-style seats and 5 large classrooms with flexible tablet-arm chairs. Both types of rooms accommodate 40 to 60 students. Renovation of these rooms started several years ago. The Vision Plan requests funding to allow us to continue with these upgrades and improvements.

Two tiered classrooms, 1.106 (the Schools videoconferencing classroom) and 1.108, have been upgraded to UT/Bartelmehs standards.

The remaining tiered classrooms, 1.110, 1.116, and 1.118. are in varying stages of completion.

Other large classrooms (4.102, 4.106, 4.183, 5.178 and 5.180) are in need of dimmable incandescent lights. During night classes students are not able to take notes except with bright florescent lighting.

2. Wireless networks

Requesting \$12,000

An increasing number of students have laptops with airport cards and would use them in the School/classes if wireless networks were available. Funds

requested in this Vision Plan would be applied to installing the wireless networks for students.

Students recommended that wireless networks be installed in the following areas (listed in priority order):

- Student lounges
- First floor lobby outside tiered classrooms
- School's courtyard
- Learning Center
- Research computer lab

3. Digital video project **Requesting \$3,500**

Basic clinical skills are areas of great concern to beginning nursing students. Up to date teaching methods that facilitate mastery of these skills is of great value to students, faculty, and the patients with whom they work. Our plan is to digitize programs for which we have copyright permission and deliver them via the web, making them available to students 24/7 from any location. This project was initiated in the last Vision cycle; however, there are three of additional pieces of equipment/software that we need to complete this project.

4. Videoconferencing facility **Requesting \$55,000**

Videoconferencing benefits communication among faculty, students, and other individuals involved in research programs and to facilitate the dissemination of research findings. Often a small seminar room-like facility has been the configuration needed to facilitate the work of the research team. Therefore, our plan presents a request for assistance with developing a small videoconferencing facility in one of our conference rooms.

TOTAL REQUESTED **\$153,500**

Review of Infrastructure and Services supported by Local and Special Funds

Equipment:

All faculty members have desktop computers that are networked to SON and external servers at 100Mb/s. All have access to the School's intranet, e-mail, Internet, and FTP servers. Although some faculty computers are slower than we would like, all are at least the grade of a 1998 iMac/Pentium II or better. All classrooms have been wired with 100Mb/s network access. The weakest links in IT resources continue to be (1) the lack of computing power on faculty desks (although this has been improved due to the Faculty Computer Initiative) and (2) our IT staff's inability to respond as quickly as we would like to student, faculty, and staff technical and educational needs due to workload.

IT Staff:

One full-time Sr. LAN Administrator, one half-time student employee (assigned to user education), and two 20-hour teaching assistants are responsible for the

School's infrastructure. In 2001, the SON subcontracted the management of the student network to ACITS. We have continued this relationship since that time and have been pleased with the expertise and responsiveness of the ACITS personnel. We feel that the School continues to profit from this relationship and that our staff and management systems benefit from the research, development, and best practices developed by ACITS.

The Learning Center staff consists of two full-time members, who work with faculty, staff, and students on data management/acquisition questions. For example the LC librarian teaches users to locate resources on a range of full-text/on-line databases. The full-time staff plus approximately 30 hours of student employees and 120 hours of Work Study Students comprise the user-education and technical assistance programs available for faculty and staff. The Learning Center is open 64 hours a week (16 of which are evening hour and four, weekend hour.

The Research Lab, primarily a resource for graduate students and faculty, is staffed by 40-hours of graduate student research assistants. They provide one-on-one training and assistance in the use of the lab's statistical software as well as in supporting techniques such as connecting to servers and importing/exporting data. A full-time Research Scientist and a 30-hour Research Associate provide expert assistance in technical statistical issues.

The SON also has a production staff consisting of a graphic artist and a radio, television, film (RTF) production manager, and 30 hours of student assistants. Both of the full-time individuals are highly skilled in information management and instructional technology and provide valuable computer graphic design and production services for the School. Furthermore, the graphic artist's role includes the design of the School's website and supervision of the web technician (15 hrs/wk student employee) who builds and maintains the site.

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:

The LC Computer classroom consists of 12 Windows-based workstations and a teacher's station. All computers, managed by LabManager software, have a full complement of software needed by students, plus Internet access. This area is closed to general student use approximately 6-8 hours a week for special classes. The other time it is available to students for individual work.

A general use computer facility provides students with an additional 18 workstations (G4s and Pentium IVs), one graphic workstation (G4 with full graphic capabilities, scanner, film recorder, and printer), two computer-video interactive stations, and VCR/DVD players.

Research Computer (RC) Lab:

The RC Lab has 8 workstations (Pentium IVs and one G4) with software needed by graduate students learning about and conducting original research. Software such as SPSS, SAS, N5, nQuery, EQS, and N6 are examples of applications available in this facility.

Clinical Simulation Lab:

The Simulation Lab features three clinical simulation classrooms with computerized hospital information systems (HIS) used in local facilities. One classroom is using PracticePartner®, a clinic management and patient record system. The second classroom has Meditec® hospital information system (HIS) used in the South Austin Medical Center, St David's Partnership, and North Austin Medical Center. Implementation of the Temple VA's electronic charting system is underway in the third simulation lab.

Research Program:

The faculty have successfully competed for a total of approximately \$19 million in extramural research funding that will be disbursed over the next five years. All programs depend heavily on technology to support collection, management, and analysis of data, and dissemination of findings. In addition, several programs are requesting/requiring videoconferencing support to communicate with co-investigators in off-campus sites and to disseminate findings. All programs depend on SON IT staff for support and consultation.

SPECIFIC ITAC FUNDING REQUESTS

PROJECT #1: Classroom environment

Upgrades in two of the tiered classrooms (1.106 and 1.108) are completed. Rewiring has been completed in the remaining 3 large, tiered classrooms rooms. Various components are needed to complete the remaining rooms:

- 1.110 needs podium upgrade
- 1.116 needs acoustic, security, and podium upgrades.
- 1.118 needs acoustic, security, and podium upgrades.

Upgrade of the tiered rooms benefits the entire student body. In addition, other University units who use these rooms, such as the Office of Admissions, benefit from the upgraded capabilities and the user-friendly controls.

Upgrades in other large classrooms (4.102, 4.106, 4.183, 5.178, and 5.180) are needed to improve faculty's control of lighting for evening classes.

Resources, Equipment, and Software Needed to Accomplish Project

Goals:

Projector	1 @ \$8,000	\$8,000
2000 lumen XGA with long throw lens		
Podium (includes computers, document camera, matrix switcher, and control system)	3 @ \$16,000	\$48,000

Acoustic renovation 1.116 and 1.118	2 @ \$4500	\$9,000
Security 1.116 and 1.118	2 @ \$2500	\$5,000
Lighting renovations (4.102, 4.106, etc) \$13,000		5 @ \$2,600
TOTAL for all rooms		\$83,000

PROJECT #2 Wireless Networks

An informal survey of second semester seniors by the student representative to the Computer Utilization Committee found that approximately 75% of the students either owned or had access to laptop computers. Although most did not have Ethernet or airport cards at this time, a small investment of \$100 would add this capability. All students on the Computer Utilization Committee recommended that we move on installing wireless capabilities to the building.

Resources, Equipment and Software needed to accomplish project goals:

Wireless base station	5 @ \$1,200	\$6,000
Loaner laptops for students	4 @ \$1,500	\$6,000

Total for wireless project **\$12,000**

PROJECT #3 Digital Videos

Instructional materials should be created and made available to students 24/7 wherever they happen to be studying. The majority of equipment needed to digitize and distribute videos has been assembled. Three additional pieces of equipment/software are needed to create and post digital videos on the school's website.

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

Computer, software, and compression equipment	1 @ \$3,500	\$3,500
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Total for digital video project **\$3,500**

PROJECT #4 Videoconferencing

A number of funded research projects require videoconferencing facilities for smaller groups (5-8 individuals). At this time we are using our current facility that is designed for larger classes (fixed auditorium seating). In addition, during the spring 04 semester, a graduate course, N395, Nursing Informatics, taught by Dr. Susan Grobe consisted of five videoconferenced classes with three receiving sites: Sweden, Iceland, and University of Utah. A videoconferencing classroom in the Pharmacy Building was used for these sessions. Having a smaller

videoconferencing facility in the School of Nursing would be of great benefit to nursing faculty and students.

Resources, Equipment and Software needed to accomplish project goals:

Videoconferencing system (e.g., Polycom)	1 @ \$20, 000	\$20,000
Wall mounted camera	2 @ \$1,500	\$3,000
Ceiling mounted monitor	1 @ \$500	\$500
Sound system e.g., Shure discussion system)	1 @ \$7,500	\$7,500
Electric screen	1 @ \$2,500	\$2,500
Ceiling mounted projector	1 @ \$7,500	\$7,500
Dataports	1 @ \$2000	\$2,000
Installation	\$8,000	\$8,000
Conf table (1) and chairs (10)	\$4,000	\$4,000
Total for Videoconferencing Project		\$55,000
	TOTAL all Projects	\$153,500
