

**School of Nursing
2005 Vision Plan for Information Technology
December 3, 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.

Summary of 2005 Projects

The projects (listed in priority order) to be addressed during the next academic year include (1) continuing to upgrade classroom environments to facilitate innovative teaching strategies, (2) using PDAs with undergraduate nursing students in their clinical practice, and (3) installing a boardroom-style teleconferencing facility. A total of \$88,400 is requested to support these projects.

1. Teleconferencing facility

Requesting \$55,000

Teleconferencing improves communication among faculty, students, and experts around the country and enhances the quality of nursing course both graduate and undergraduate. Often a small seminar room has been the configuration needed to facilitate the type of courses found on the graduate level. Therefore, our plan presents a request for assistance with developing a small teleconferencing facility in one of our conference rooms.

2. Personal Data Assistants (PDAs)

Requesting 5,000

PDAs are proving to be valuable to healthcare providers. Among the applications that are proving vital to practice are drug references and other diagnostic aids. Publishers of nursing texts have begun publishing PDA-based resources that would be helpful to students and faculty. The faculty believe it is time to include this tool in the undergraduate program.

3. Classroom environment

Requesting \$28,400

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.

TOTAL REQUESTED

\$88,400

OVERVIEW OF CURRENT IT PROGRAMS AND INFRASTRUCTURE

Vision/Mission/Goals of the School of Nursing are attached and may also be found at <http://www.nur.utexas.edu/it-ni/ltstratplan.htm>. 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 faculty, staff and students to teach and practice nursing in an increasingly technology-based health care system. To accomplish this, we must 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 another tool to improve nursing practice, teaching, and research.

Programs

Instructional Environment

Classrooms:

All classroom instruction takes place in the Nursing Building. The school has 5 large fixed-seating tiered classrooms, 5 large flexible-seating classrooms, and 10 conference/seminar rooms.

One of the tiered classrooms (1.106) is used for teleconferences in the undergraduate and graduate programs and for research grants.

Learning Center:

The LC consists of 5 areas/services: a nursing/health audiovisual library, a computer facility, learning enhancement services, a clinical simulation laboratory, and an AV/web production facility. All components of the Learning Center use or teach about technology in various ways. For example, an important role of staff in the library is to teach students to search online databases for needed references.

The computer facility has 24 PCs and 6 Macintosh computers, making up a network with 100 MB Ethernet access, basic application software such as Microsoft Office, and many nursing and health-related instructional programs. All computers, managed by LabManager software, provide access to the University printing. Twelve of the computers are located in a small classroom, where a computer elective and periodic sessions from other nursing courses are taught. The 17 computers outside the classroom plus the classroom workstations (when not being used for a class) are available to students 64 hours a week.

The Learning Center also furnishes 3 Macintosh and 5 PC and Macintosh laptops for student and faculty checkout.

The Learning Center is one of five areas in the Nursing building covered by the wireless network installed earlier this semester.

The Simulation Lab features three clinical simulation classrooms with computerized hospital information systems (HIS) used in local facilities. Each classroom is equipped with Meditec® hospital information system (HIS) used in the South Austin Medical Center, St David's Partnership, and North Austin Medical Center and the VA HIS, the system used by the Central Texas Veterans Health Care Systems. The Cerner System, being installed by the Seton Healthcare Network, will be added to the rooms in the near future.

Research Computer Lab

The RC Lab has 8 workstations (7 Pentium IVs and one Apple 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 to students in this facility.

Clinics (Children's Wellness Center and Community Women's Wellness Center)
 The School of Nursing manages two clinics, one for children in the Del Valle Independent School District. This facility provides an important source of clinical practice for the School's undergraduate and Advanced Nurse Practitioner students. In January, 2005, when the LC computers are upgraded, 12 computers will be cascaded to the Children's Wellness Center.

Staff:

The IT staff consists of one Senior LAN Administrator for the entire School and two 20-hour Teaching Assistants. The network Manager and one of the TAs are paid from the School classified staff wages account. The other TA is paid from the Student Information Technology Fee account (SIT Account).

Management of the student network is subcontracted (quarter time) to ITS. This contract is funded by the SIT account. In addition, a 20-hour student worker is funded by the SIT account. This position assists LC staff with new user education. A 30-hour student worker, web technician is partially funded by the SIT account.

Infrastructure:

Network -- all 100MB Ethernet throughout building

Wireless -- 5 wireless areas defined and installed as of fall '04:

- 1st floor hall outside classrooms
- 2nd floor outdoor plaza
- 3rd floor research labs and study areas
- 5th floor Learning Center

Workstations

Students, financed by ITAC: 2.4 GHz PCs, 512MB RAM
 Faculty, SON M&O, FCI, or CLC: averaging Pentium 3 or 700 MHz Mac
 Staff: average 1MHz Macs

IT-equipped classrooms

- Two 1st floor tiered classrooms equipped with central control podium, including one PC, one Mac, Ethernet connections for lecturers' laptops, document projector, and projector and volume controls.
- Three 1st floor tiered classrooms equipped with same general capabilities but minus the control podium
- All SON classrooms have Ethernet available for lecturers to use with laptops or portable computers and projectors on carts

Current and proposed funding sources for IT programs and infrastructure.

Currently, the School's IT programs and infrastructure are funded by a combination of the SIT account, the Dean's Various Donor account, the LC MO&E, the LC Utilization fee, and faculty research grant awards (when possible). During the past year, the Texas Higher Education Coordinating Board allocated funds to nursing schools that increased their student admissions as an incentive to produce more graduate nurses. We used a portion of these funds for additional instructional technology required by the

larger student body. In fall 2004, the Senate of College Councils contributed \$2,400 toward the Wireless project.

The SON benefits from and appreciates the Faculty Computer Initiative and the Life Cycle Funding furnished by the University. This adds more powerful computers that are available for faculty—a need that is not well met at this time.

No new funding sources are anticipated in the future.

Best Practices

Security -- all SON personnel now use strong EID passwords. Mail and fileserver passwords are medium-strength initially and may be strengthened at users' option

Barracuda 200 anti-spam and anti-virus firewall were added to protect SON incoming e-mail stream. This allows domain-level spam filtering and white listing but not individual-level.

All PCs are set to automatically download and install Windows and Norton anti-virus updates.

Macs are set to check for OS updates automatically

USE OF PREVIOUS ACADEMIC YEAR ALLOCATIONS

Programs

Instructional Environments:

Several projects have involved the instructional environments. First SIT funds have been used to upgrade the equipment in the classrooms. IT consoles have been added to two of the tiered classrooms and we have ordered one for each of the other three tiered lecture rooms.

The large flexible-seating classrooms are in need of lighting upgrades. Dimmable, down lights were added to the fluorescent lighting in one room to give faculty more control of the level of lighting. This will be done to the other 4 large classrooms.

Learning Center and Research Center

All software licenses, application upgrades, repairs, and equipment replacements are funded by the SIT funds.

Last year all computers in the Research Computer Lab were upgraded to P4 PCs.

January 2005, all PCs in the LC will be replaced. This is done on a three-year cycle.

Simulation Lab

One initiative in the Simulation Lab is to introduce and begin preparing students to use hospital information systems. Currently all rooms have Meditech (used at Columbia System Hospitals) and the HIS used at Temple VA. Soon we will be

adding the Cerner system being implemented at Seton Healthcare Partnership facilities. Past projects have added three computer workstations to each simulation labs (3). This fall all nine computers were upgraded.

Infrastructure

Over the past two years the entire building was upgraded to 100MB Ethernet.

Wireless network was added to 5 student-selected areas in the building: The Learning Center, the student lounges, the area outside the 5 tiered classrooms, the patio, and the Research Computer Lab.

One-time Projects

NEEDS AND PROPOSED USE OF FUNDS

Programs

Instructional Environments

The School has one teleconference facility, a large tiered, fixed-seating room. On many occasions a conference style facility is needed to augment a class session. During the spring 2004 semester, a graduate course, N395, Nursing Informatics, taught by Dr. Susan Grobe consisted of five teleconferenced 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. We propose to use SIT funds to accomplish this goal.

PROJECT #1 Videoconferencing--Resources, Equipment and Software needed to accomplish project goals:

Videoconferencing system	1 @ \$20, 000	\$20,000 (e.g., Polycom)
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 @ \$2,000	\$2,000
Installation	\$8,000	\$8,000
Conf table (1) and chairs (10)	\$4,000	\$4,000
Total for Videoconferencing Project		\$55,000

PDA's for Undergraduate Students

PDA's are being used more and more in clinical settings. Many drug references, texts, and diagnostic aids are now available for PDA's. PDA's are new tools that our students should be prepared to use to enhance their practice. The first step is getting all clinical faculty familiar with PDA's and their use in practice. During the fall '04 semester, PDA's were furnished to a pilot group of faculty who previously have not used them. Software and training on the PDA's is underway. More PDA's and software will be distributed in the future.

PROJECT #2 PDA's--Resources, Equipment and Software needed to accomplish project goals:

PDA's Minimum 32 K with color Screen	20 @ 200	4,000
256 expansion card	20 @ 50	1,000
software	no estimate at this time	
Total for PDA Project		\$5,000

Infrastructure

Classroom Environment

The classroom environment is in constant need of upgrades. The School plans to continue to add consoles to the tiered classrooms and upgrade lighting controls.

PROJECT #3 Classroom Environment upgrades--Resources, Equipment and Software needed to accomplish project goals:

Interactive consoles	1 @ 18,000	18,000
Dimmable lights in large classrooms	4 @ 2,600	10,400
Standardization of lighting controls in tiered classrooms.	no estimate available	
Total for Classroom Environment Project		\$28,400

One-time Projects

Programs