School of Nursing
2007-8 Vision Plan for Information Technology
December 1, 2006

Introduction

This report outlines the proposed projects, acquisitions, and/or upgrades for student instructional technology (IT) and nursing informatics (NI) resources within the School of Nursing

Summary of 2007-8 Projects

The projects to be addressed during the next academic year will be to 1) upgrade classrooms to facilitate innovative teaching strategies and outfitting a boardroom-style teleconferencing facility and 2) purchase additional computerized simulation models and accessories for the clinical simulation lab. A total of $451,775 is requested to support these projects.

1. Classroom environment upgrades include: Requesting $155,500+

a. Multipurpose Classroom ($25,000)

The School of Nursing renovated its multipurpose classroom, which is used for large classes, high-stakes testing, and all-school gatherings. Funds from the Dean's discretionary account the 05-6 ITAC and Vision funds were not sufficient to complete the IT features designed for this room. This proposal requests funding to purchase and install the remaining equipment.

b. Tiered and other large classrooms ($99,000)

The School of Nursing has 5 large tiered classrooms with fixed auditorium-style seating and 6 large classrooms with flexible tablet-arm chairs. Both types of rooms accommodate 40 to 70 students. Renovation of these rooms started several years ago. This proposal requests funding to enable us to continue with these upgrades and improvements.

c. Boardroom-size Teleconferencing facility ($73,500)

Many times doctoral seminars with 12-15 students and communication required by grant projects would be best served by a small teleconference facility. A smaller boardroom-like facility would greatly improve the quality of the interaction and transmissions. This proposal requests funds for AV/telecommunication equipment.

2. Clinical Simulation Equipment Requesting $296,275

The simulation equipment involved in teaching clinical nursing skills has grown markedly over the past couple of years. The School will be renovating a room to be used as an additional simulation lab. In addition we will be adding one SimMan and a half time employee to program and maintain the simulator. We plan on adding more simulators and training the faculty to incorporate more sophisticated simulations in the future. Vision funds will enable us to add this equipment for student instruction.

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/stratplan.pdf. Briefly, our vision, mission, and goals include strategies that encourage and facilitate the inclusion of instructional technology and nursing informatics concepts in the curricula and in our profession and educational tasks. 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 healthcare 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 a powerful tool that promotes quality 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, 6 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, for collaborative research projects, and serve as a satellite campus for UT School of Public Health, (UTSPH). During the past semester, the UTSPH upgraded a portion of the teleconferencing equipment incorporating our existing equipment.

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 34 PCs computers, creating a network with 100 MB Ethernet access, basic application software such as Microsoft Office, FileMaker Pro, Dreamweaver, Firefox, and many nursing and health-related instructional programs. All computers, managed by LabManager software, provide access to the University printing service. Thirteen of the computers are located in a small classroom, where computer-related classes are taught. The 21 computers outside the classroom plus the classroom workstations (when not being used for a class) are available to students 67 hours a week.

The Learning Center also furnishes 2 Macintosh and 15 PC laptops for student and faculty checkout.

Although wireless access has been installed in six primary student areas, one is able to access the network throughout building.

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 St David's Partnership network: St. David's Medical Center, North Austin Medical Center and the South Austin Hospital. The VA HIS, the system used by the Central Texas Veterans Health Care Systems and the Cerner System, being installed by the Seton Healthcare Network, will be added to the rooms as they become available. Plans are underway to renovate a classroom to serve as a fourth clinical simulation classroom. As we are able, we are adding computerized mannequins that enable us to increase the fidelity of simulations.

Research Computer Lab

The Cain Center Computer Lab has 9 workstations (7 Pentium IVs and two Apple G4) with software needed by faculty and 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.

Faculty and Instructional tools

Faculty are using the following tools with varying levels of sophistication:

Podcasts
e-mail
Presentation software—PowerPoint
WebSpace
e-Reserve
BlackBoard including discussion boards and other communication devices
Classroom Response System

Faculty use computerized testing software, QuestionMark® for low-stake quizzes.

Two faculty members are using technology to implement a teaching schedule (modified distance learning situation) that incorporates online teaching methods and teleconferencing with remote international sites.

Clinics (Children's Wellness Center, Community Women's Wellness Center, and the Family Wellness Center)

The School of Nursing manages three clinics, one for children in the Del Valle Independent School District, one that provides breast cancer screening for uninsured women in Austin and one that provides access to healthcare for underserved families. These facilities provide important sources of clinical practice for students and opportunities to use technology associated with the delivery of care and the management of patient data.

IT Staff and Student Network Management

The IT staff of the School of Nursing consists of one System Analyst for the entire School and 1.5 (60 hours) FTE Teaching Assistants. The LAN Administrator is paid

from the School's classified staff wages account. The TAs are paid from the Student Information Technology Fee account (SIT Account).

Management of the student network is subcontracted (6 hours a week) to ITS. This contract is funded by the SIT account. In addition, a 20-hour student worker, who assists LC staff with new-user education, is funded by the SIT account. A 40-hour web master is partially funded by the SIT account.

Infrastructure:

Network -- 100MB Ethernet throughout building—offices and classrooms

Wireless – available in all student areas.

Workstations

- Students, financed by ITAC: 2.4 GHz PCs, 512MB RAM
- Faculty, financed by FCI, CLC, SON MO&E, Dean's discretionary account and cascades from student workstations: Tenure and tenure-track faculty equipment average 1 GHz or better and 700 MHz Mac. Clinical faculty machines average G3s or better.
- Staff, financed by SON MO&E, Dean's discretionary account and cascades from student workstations: average 400 MHz Apples.

Current and proposed funding sources for IT programs and infrastructure.

Currently, the School's IT equipment, programs and infrastructure are funded by a combination of the SIT account, the Dean's Various Donor account, the LC MO&E, the Learning Center Utilization fee, the clinical course fees, and faculty research grant awards (when possible). During the past two years, 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.

The SON benefits from and appreciates the Faculty Computer Initiative and the Life Cycle Funding furnished by the University. This is an important source of powerful computers that are difficult to come by for faculty.

No new funding sources are anticipated in the future.

As a result of the severe nursing shortage in the State and Nation, the SON increased our graduation of new nurses by 36%. Dean Sands requested that the University assist the School with additional funds to supplement the tuition and fees. The school was granted $120,000 to purchase additional clinical lab equipment and computerized simulators. The Texas Higher Education Coordinating continues to provide funds to support schools that show significant increases in their graduation rates. The next legislative session may identify more funds to continue incentives to produce more nurses.

Best Practices

Security – As directions are developed by the Vice President for Research's office concerning security of research data, staff have begun to prepare the researchers and their staff for possible changes in their procedures.

Social Security numbers have been removed from all administrative databases.

Spamcaster was added to Barracuda 200 anti-spam and anti-virus firewall to protect the SON incoming e-mail stream. This allows domain-level spam filtering and whitelisting, but not at the individual-level.

Faculty and staff workstations require passwords for login and display a banner before login containing disclaimers and terms of use.

All PCs feature anti-virus and firewall software and 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

Staff

Student Information Technology (SIT) funds have been used to pay 3 FIT student employees who support faculty and staff in learning to use computer resources and to solve problems with them.

SIT funds are used to contract with ITS to manage the student computer network.

Programs and one-time projects

Instructional Environments:

As a contribution to the renovation of the multipurpose room, $40, 000 was used to purchase the AV infrastructure and basic equipment for that learning space.

Learning Center and Research Center

This past academic year we will have added 6 laptops for student check out. TV/VCR units were replaced in the study rooms. Equipment on all portable computer/projector carts was repaired/upgraded. Four ceiling mounted projectors and controls are being added to two of the large classrooms and two of the conference rooms.

Simulation Lab

SIT funds were used to purchase and install DVD/VCR monitors in each simulation lab. Three computerized med carts were purchased for the simulation lab. Laptop computers were purchased from the SIT funds to be used with that equipment.

NEEDS AND PROPOSED USE OF FUNDS
Infrastructure and one-time projects

PROJECT 1 Classroom Environments **Total $197,500+**

a. Multipurpose Room		Subtotal	$25,000
PA System with wireless mic			5,000
Interactive Console	1 @	20,000	20,000
b. Classroom		Subtotal	$99,000+
Tiered classroom 1.116			
Interactive Console			
with installation and security	1 @	20,000	20,000
Standardization and upgrading of lighting controls. in tiered classrooms	5 @	no estimate available	
Add lighting and screen controls to consoles	5 @	no estimate available	
Classroom furniture	5 @	no estimate available	
Six large classrooms with flexible seating			
Small modified console with laptop	6 @	3,500	21,000
Ceiling mounted projector	6 @	7,500	45,000
Dimmable lights in large classrooms	5 @	2,600	13,000
Classroom furniture		no estimate available	
c. Boardroom-size teleconferencing facility		Total	$73,500
Resources, Equipment and Software needed to accomplish project goals:			
Small modified console with laptop with DVD burner	6 @	3,500	21,000
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
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

PROJECT 2 Clinical SimMan Mannequin			**Total $296,275**
SimMan (one might be child) with warranty	2 @	50,000	100,000
SimMan accessories (computer, compressor, etc)	2 @	16,000	32,000
Noelle Birthing manikin	1 @		3,500
ICU stretcher (refurbished)	2 @	3,000	6,000
fetal monitor	1 @		3,400
Sim Baby	1 @		32,230
Birthing bed	1 @		7,360
Bassinet	1 @		1,232
Radiant Warmer	1 @		donated
IV Pump	3 @	4,423	13,269
Electronics for control room			
Cameras & installation	4 @		43,300
Dell Axim	4 @	1,136	4,544
Headphones	4 @	360	1,440
Video Server with window client and video client	4 @	12,000	48,000

APPENDIX

The University of Texas at Austin School of Nursing
NURSING INFORMATICS AND INFORMATION TECHNOLOGY STRATEGIC PLAN
2007-2009
reviewed 11/2006

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 with out regard to time or place. Specifically:

Students, 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, students, faculty and staff appreciate, understand, and use nursing informatics concepts and information technology in all aspects of nursing practice, education, and research;
Faculty and staff are leaders in the innovative use of nursing informatics (NI) and formation technology (IT) in nursing practice, education, and research; and
The University community understands the role of nursing informatics and information technology in nursing and health care.

Mission:

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

Goals for 2006-2007

1. Students will have access to state-of-the-science technology.
2. Faculty and staff will have access to adequate computing resources on their desks.
3. Faculty and staff will have access to state-of-the-science technology within the building.
4. Faculty, staff, and students will possess a basic set of skills in nursing informatics, information technology and computer use.
5. Faculty, staff, and students will be challenged to incorporate nursing informatics concepts and new technology into their professional and scholarly activities.
6. Accurate, timely technical consultation will be available to students, faculty, and staff.
7. Nursing informatics and information technology content will be integrated into the curricula.
8. Resources will be identified and allocated for acquisition, support, enhancement, maintenance, and protection of technology.
9. The University community will be informed of the role of nursing informatics and information technology in nursing and health care