School of Nursing
2008-09 Vision Plan for Information Technology
Submitted November 30, 2007

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 2008-09 PROJECTS

The projects to be addressed during the next academic year will be to1) upgrade classrooms to facilitate innovative teaching strategies and 2) purchase additional computerized simulation models and accessories for the clinical simulation lab. A total of $420,562 is requested to support these projects.

Classroom environment upgrades **Requesting $126,000+**

a. Multipurpose Classroom ($15,000)
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, 05-7 ITAC, and Vision funds were used for the renovations. The stop needed to complete this renovation is to connect the multipurpose room to the teleconference room (1.106) to accommodate spill over crowds.

b. Tiered and other large classrooms ($111,000)
The School of Nursing has 5 large tiered classrooms with fixed auditorium-style seating and 4 large classrooms with flexible tablet-arm chairs accommodating 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.

Clinical simulation equipment **Requesting $264,562**

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 professional 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

Classrooms

Most classroom instruction takes place in the Nursing Building. With the increasing numbers of students admitted to the professional sequence (80 today vs. 50-60 in the past), we are moving some of the lecture classes to other campus facilities. To accommodate on-site classes, the school has 5 large tiered (fixed-seating) classrooms, 4 large (flexible-seating) classrooms, and 8 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 serves as a satellite campus for Houston-based UT School of Public Health, (UTSPH). In addition, during the past semester, the UTSPH upgraded a portion of the teleconferencing equipment augmenting our existing equipment. All of the other tiered classrooms, except one, have University-built interactive consoles. Portable AV carts and ceiling mounted projectors accommodate AV-based instructional materials in other classrooms. A newly acquired mobile codec system, purchased with ITAC funds permits teleconferences in any space in the School.

Learning Center

The LC consists of 5 areas/services: a nursing/health audiovisual library, a computer facility, a learning enhancement program, a clinical simulation laboratory, and an AV/web production facility. All components of the Learning Center use and teach 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 AV/web production facility assists students in the design and production materials for class assignments, patient teaching activities, or the presentation of research data.

The School's computer facility has 34 PC 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 software-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 13 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 the building. With the addition of the wireless network, more and more students are bringing their laptops to classes and the LC. This

phenomenon has accentuated the need for electrical outlets in the classrooms and other study areas. The survey done of the nursing classrooms is attached.

The Simulation Lab features three clinical simulation classrooms with simulated, computerized hospital information systems (HIS). Students practice various clinical skills and respond to clinical situations using a variety of simulators, from high fidelity SimMan to lower fidelity task trainers such as IV arms. Renovations using Vision funds and University funds are underway to create a simulation center housing high fidelity simulators so that we can create clinical scenarios to challenge or test students' critical thinking skills.

With the move of the Children's Hospital to the new Dell Hospital, Seton converted the facility to a Clinical Education Center (CEC). This facility features several clinical skills labs and multiple training rooms with high fidelity manikins. The School of Nursing is a member of the collective using the facility. To date we have had 4-5 lab groups assigned to the CEC for clinical skills classes. We hope to make more use of the CEC in the future.

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:

e-mail
presentation software—PowerPoint®
BlackBoard® including discussion boards and other communication devices
WebSpace
Classroom Response System®

Faculty use computerized testing software, QuestionMark®, and MyNursingLab®, a website that accompanies a textbook.

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

The School of Nursing manages three health 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 healthcare for underserved families. These facilities provide important sources of clinical practice for students and opportunities to use technology associated with the delivery and management of patient care.

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 Computer Technician 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 computer network is contracted (6 hours a week) to ITS. This contract is funded by the SIT account. In addition, a 20-hour/wk student worker, who assists LC staff with new-user education, is funded by the SIT account. A full time web master is partially (15%) 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).

The SON benefits from and appreciates the Faculty Computer Initiative and the Life Cycle Funding furnished by the University. These are the only sources of new faculty computers, while the major source for upgrades is cascades from replacement of student computers, which we do every four years.

No new funding sources are anticipated in the future.

Best Practices

We have moved over 20 SON printers to a private network for increased security and are in the process of moving the last 4-5 printers to that network.

The Sensitive Number Finder utility was made available to all SON personnel to help them determine if CAT 1 data was on their machines, and a survey was distributed for faculty and staff to complete concerning the types of sensitive data on their machines. Response to the survey was about 30% but was adequate for risk assessment purposes. Completed UT's ISORA risk assessment survey. Our security profile of actual incidents is well above UT average.

We are moving to restrict permissions on workstation logon accounts and make all users aware of their security responsibilities.

Significant IT time is being spent on reviewing SON procedures and compliance with policy UTS 165. Estimated IT staff time in dealing with the requirements of this policy is 20% - 30%.

We're noticing significant burn-in damage to a number of monitors due to the required disclaimer notice that is displayed constantly when the machine is unused.

We are going to discontinue use of Spamcaster to see whether the benefit is worth the cost. If a significant increase in spam is noticed, we will reinstate the service.

Virtually all SON PC workstations are running fully patched Windows XP. We have no plans to move to Windows Vista. We are acquiring about a dozen Macs so that all SON Mac workstations will be able to run Leopard (Mac OS X 10.5).

USE OF PREVIOUS ACADEMIC YEAR ALLOCATIONS

SIT funds are used to fund personnel and equipment consistent with the original guidelines established for the account.

Infrastructure

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. In addition, these funds support 15% of the salary of our webmaster's salary ($26,000).

SIT funds are used to contract with ITS to manage the student computer network ($16,000).

Continuing commitments

Recurring costs for items such as software licenses were covered from this account ($13,500).

Programs and one-time projects

Instructional Environments:

This year two of the large projectors in the tiered classrooms were replaced. Ceiling mounted projectors were installed in 4 of the large classrooms. Replacement projection bulbs and repairs for classroom equipment were charged to this account. And finally a portable AV system for distance education was purchased from this account ($45,000).

Learning Center and Research Center

This past academic year we replaced the research lab printer, purchased several instructional software programs, and charged all repairs for student workstations from this account ($3,000).

Simulation Lab

SIT funds were used to purchase a replacement printer for the sim lab workstation. In addition cards and Ethernet connections were installed for all printers ($2,500).

Academic Year 06-07 we received	$110,000
Total expenditures	106,000
Carried over to 07-08	$4,000

One-time Projects

The past Vision and SIT funds have been requested for classroom upgrading and for building our clinical simulation resources. All funds have been directed to that end, with the exception of repairs and recurring expenses.

NEEDS AND PROPOSED USE OF FUNDS

PROJECT 1 Classroom Environments **Total $126,000+**

a. Multipurpose Room		Subtotal	$15,000
Extend teleconf wiring from 1.106 room to 1.112 Multipurpose room			15,000
b. Classroom		Subtotal	$111,000+
Tiered classroom 1.116			
Interactive Console with installation and security	1 @	20,000 ea	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 (two rooms)	80 @	$200 ea	16,000
Six large classrooms with flexible seating:			
Small modified console with laptop	6 @	3,500 ea	21,000
Document camera	4 @	2,500 ea	10,000
Ceiling mounted projector + installation	2 @	7,500 ea	15,000
Dimmable lights in large classrooms	5 @	2,600 ea	13,000
Classroom furniture (two rooms)	80 @	$200 ea	16,000

PROJECT 2 Clinical SimMan Mannequin **Total $264,562**

MicroSim Hospital	1 @	4,000 ea	4,000
SimMan (one might be child) with warranty	2 @	40,000 ea	80,000
ICU stretcher (refurbished)	2 @	3,000 ea	6,000
Youth bed (refurbished)	1 @	2,500	2,500
Patient unit furniture (overbed table etc)	2 @	900 ea	1,800
Welch Alyn Headwall (otoscope etc)	4 @	1,500 ea	6,000
3 or 4 channel pump (refurbished)	3 @	3,000 ea	9,000
Noelle Birthing manikin (simple)	1 @	4,000 ea	4,000
Noelle birthing manikin (complex)	1 @	35,000 ea	35,000
Birthing bed with mattress (refurbished)	1 @	7,600 ea	7,600
Radiant warmer for newborn (refurbished)	1	price not available	
Neonatal resuscitation baby	1 @	750 ea	750
Sim baby	1 @	31,000 ea	31,000
Baby Stap (spinal tap)	1 @	400 ea	400
Infant/adult trach care simulator set	1 @	700 ea	700
Fetal monitor	1 @		3,400
Bassinet	1 @		1,232
Crash cart	1 @	2,400 ea	2,400
Mobile computer table	4 @	1,600 ea	6,400
Laptop computers for charting	4 @	1800 ea	7,200
Cabinets	4 @	800 ea	3,200
Linen hamper	4 @	120 ea	480
Virtual IV’s with modules + warranty	2 @	11,700 ea	23,400
in hospital module	2 @	2,500 ea	5,000
phlebotomy module	2 @	4,000 ea	8,000
anatomical viewer	2 @	500 ea	1,000
infant module	2 @	2,500 ea	5,000
Conscious sedation monitor and stand	1 @	5,300 ea	5,300
Vital sign monitor and stand	1 @	3,800 ea	3,800

APPENDIX

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

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 2007-2008

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