

The University of Texas Arlington, School of Nursing
Smart Hospital™

A Leader in Simulation Based Learning

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A Laerdal Center of Excellence in Simulation
A Hill-Rom National Demonstration Showcase
The Cardinal Health Nursing Discovery Center

In 2005, the School of Nursing created a Smart Emergency Department™, a learning laboratory for undergraduate and graduate nursing students. The success of this Phase I endeavor led to the creation and implementation of Phase II of the Smart Hospital™, a 13,000 sq. ft. facility designed by the faculty, staff and external sponsors and supporters.

More than 30 manikins and 40 standardized patients (specially trained actors) are available for use in the teaching and evaluation scenarios that occur in the Smart Hospital™. The simulated patients occupy the 7-bed Emergency Department, 4-bed Adult Intensive Care Unit, 2-bed Neo-natal Intensive Care Unit, 2 Labor and Delivery suites, 3-bed Pediatric Unit, and 4-bed Adult Medical-Surgical Unit and 4 debriefing rooms. The large Team Training Unit™ focuses on individual and interdisciplinary development and assessment of in-hospital rescue, stabilization, and resuscitation skills. Complimenting the 23 beds in the Smart Hospital™ the 23 learning stations are equipped with a full array of individual task trainers such as the Adult and Pediatric Virtual I.V.™ and computerized self-directed learning tools such as MicroSim Inhospital™.

Educational Commitment

UT Arlington School of Nursing is committed to providing an innovative educational model that produces nurses who effectively and quickly integrate into the health care environment and are life long learners and leaders. The Smart Hospital™, the national leader in Simulation- Based Learning, is to the student nurse what a flight simulator is to

a student pilot. A unique aspect of the School of Nursing's commitment to the use of simulation learning is the integration of simulation into the overall curriculum of both the undergraduate and graduate nursing programs rather than an occasional event in which students may participate. "Learning by Random Opportunity", associated with traditional clinical rotations, is not the UT Arlington way. The expert faculty plan the case studies and learning experiences to facilitate each student's ability to think critically as well as clinically and to provide safe competent care with confidence.

Simulation enhanced clinical education improves patient safety in health care settings. Within the Smart Hospital™, students experience changes in patients' conditions, both subtle and obvious, that they will experience in actual practice. The goal of the Smart Hospital™ is to ensure that UTA graduates require shortened orientation periods, are more adept in providing care, and better prepared to address patient safety needs by allowing them repeated exposure to essential learning experiences.

The Future

As part of the Master Plan of the University of Texas Arlington, the School of Nursing plans to build a 100,000 sq. ft. facility to house Phase III-the Smart Hospital and Health System™ (SHHS). This regional and national demonstration center will include a fully functional 60-bed teaching/learning hospital populated with 60 manikins representing those patients typically found in today's health care facilities. It will also be the site for multidisciplinary health care education and evaluation of clinical competency, workforce and product development, health care research, and a community resource for surge capacity and disaster response.

Three key collaborations with industry leaders in simulation technology and health care products and services underscore the recognition of The University of Texas at Arlington's School of Nursing as a leader in nursing education innovation and research.

- The Smart Hospital™ is one of only six Laerdal Centers of Excellence in Simulation worldwide. These Centers are dedicated to simulation-based education, training and research. Four are affiliated with Medical Schools and one with a School of Nursing.

- The Smart Hospital™ is a Hill-Rom National Demonstration Showcase. Hill-Rom is an international leader in the development and production of health care products and services that enhanced quality care and workplace safety.
- The Smart Hospital™ is a Cardinal Health Nursing Discovery Center. Cardinal Health develops market-leading patient safety technologies, manufactures medical and surgical products and is one of the largest distributors of pharmaceuticals and medical supplies worldwide. Its focus is on breaking the cycle of harmful medication errors, reducing hospital-acquired infections and making supply chains more efficient.

The Smart Hospital™ Advantages

- Strategic benefits for those conducting research on the use of simulation in education and training of healthcare professionals.
- Learning environment that ensures higher levels of competence and confidence in clinical and critical thinking skills
- Learning environment that prepares the healthcare workforce to manage the demands of complex and changing health care settings and the emerging technologies required to support such settings.
- Learning environment that supports faculty to develop and evaluate new educational models, modalities, and teaching-learning strategies at no risk to patients
- Simulation technology and products matched to healthcare provider learning needs now and into the future
- Site to develop and demonstrate best practices and the ways in which healthcare products, services, and technologies support best practices.
- Continuing education and credentialing of practicing healthcare providers and community emergency responders.

Related articles, publications, press coverage

http://www.uta.edu/nursing/simulation/smart_hospital.php

Nursing Simulation

<http://www.uta.edu/nursing/simulation/pr-laerdal.pdf>

Press Release - The Smart Hospital at The University of Texas at Arlington School of Nursing becomes a Laerdal Center of Excellence in Simulation.

<http://www.uta.edu/nursing/simulation/OK2-19StdPatients>

UTA simulator helps nursing students learn
Fort Worth Star-Telegram

<http://www.bizpress.net/display.php?id=4611&search=Smart%20Hospital>

UTA receives funding to construct Smart Hospital
Fort Worth Business Press

<http://www.theshorthorn.com/new/archives/2006/spring/030206/n06.asp>

Simulation program needs student actors
The Shorthorn Online, UT Arlington

<http://www.uta.edu/nursing/simulation/HardeeOpinion.pdf>

Prognosis: Excellent
Fort Worth Star-Telegram

<http://www.uta.edu/publications/researchmagazine/2006/index.php?id=42>

Nouveau nursing
Futuristic hospital's lifelike manikins help students treat simulated illnesses
Research Magazine, UT Arlington

Public testimony from participants

<http://www.theshorthorn.com/archive/2005/fall/05-sep-28/n092805-04.html>

"You can go through critical situations without worrying about actually killing the patient," nursing senior Brian Huber said.

Senior Kimberly Narogu is already praising the opportunity to practice daily in the classroom what would normally require her to get an internship at a major hospital to perform. By being able to practice early in school, she said she has a leg up on employment opportunities once she leaves the university and begins seeking a job in the nursing field.

<http://www.uta.edu/nursing/simulation/OK2-19StdPatients>

"We could have saved her, but she just showed up too late with too many problems," said Jaelyn McTaggart, a senior nursing student who plans a career as a pediatric specialist.

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The Smart Hospital™ Leadership Team

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Dean and Co-Founder of the Smart Hospital™

Carolyn L. Cason RN PhD
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Senior Scientist, Simulation in Pediatric Care

Tiffany Holmes DC
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For additional information: www.uta.edu/nursing