Student Technology Fee

Grant Proposal

2008.01~~5~~

2007-08

14? 1) wireless? 2) tablet PC - 3) wired network?

Lobby to special initiatives

Dr. Jim McCrory

~~Approved~~ Denied

Comment: It must be understood that this device may interfere w. the ~~the~~ operation of wireless ~~access~~ access points that may be located on the Shreveport campus. The Shreveport campus should have a plan for how they are going to deal w. the possible interference

Diana Hamilton

Approved Denied

Comment: _____

Gary Gatch

Approved Denied

Comment: _____

Mike McDonald

Approved Denied

Comment: Make sure wireless signal does not interfere with us

Dale Martin

Approved Denied

Comment: Wiring

Student Technology Fee
Grant Proposal Request Form
Fiscal Year 2007-08
Northwestern State University of Louisiana

2008.014

#2 NP

ALL BLANKS MUST BE FILLED COMPLETELY

Prepared by: Mollie Moody, Susan Snell, Susan Pierce, Alana Bragg For: NOELLE Childbirth/Newborn HAL Simulators

Department/Unit: Nursing College: College of Nursing Campus: Shreveport

Which NSTEP Goals/Objectives does this project meet? Objective #3

Requested equipment will be located/installed/housed? Building: Shreveport Nursing Lab

Are department property policies and procedures in place for requested equipment? Yes

Which individual will be responsible for property control of the requested equipment?

Signature: _____ Date: 10/29/07

Grant Proposal Requested Amount:$ 42,093.51 Budget Attached (circle one): (YES)/NO

Grant delivered to Student Technology located in Watson Library, Room 113. Date _____

The grant proposal must include all specifications, description, model number, quotation, cost, state contract number, and vendor for each item. If the proposal does not include all requested information, it will be returned to requestor.

1. Describe target audience.

The target audience for this proposal is comprised of in excess of 500 undergraduate and graduate nursing students who are enrolled in the clinical components of their respective nursing programs. It is anticipated that approximately one quarter of these students who are enrolled in maternal-child nursing will gain critical clinically-related experiences utilizing this childbirth and infant care simulator each semester. Eventually all Associate of Science in Nursing and Bachelor of Science in Nursing as well as Graduate nursing students will benefit from the use of *NOELLE and Newborn HAL*. This cutting edge instructional technology provides exceptional, life-like simulation experiences for application of theory and demonstration of clinical skills within a supervised, low-risk environment for students prior to engaging in labor, delivery and child health care within the actual patient care situation. Of extreme importance is the fact that these skills are an expectation in preparation for the undergraduates to pass the NCLEX-RN national licensing exam and for graduate students to pass the certification examination to become Women's Health and Pediatric Nurse Practitioners.

2. Describe project/initiative for which you are requesting funds.
The trends in nursing education are to broaden students' exposure to multiple health care issues, integrating cutting-edge technology that will enhance and sustain student understanding and learning. Consistent with the University and College of Nursing goals to increase the use of technology-driven, content-specific simulation learning across the curriculum, this maternity and newborn simulator will provide students with unparalleled opportunities gain critical experiences in the care of these patients within a supervised, risk-free environment. These experiences are designed to assist students to think critically and make sound clinical decisions as they apply theoretical content with a simulated patient care environment. *NOELLE and Newborn HAL* will be used along with clinical case scenarios to enhance problem solving abilities, critical thinking skills and, clinical reasoning skills to facilitate rapid responses to assure safe and effective care delivery.

Development of these skills in a simulated environment are directly transferable to real life encounters as a nurse. Simulated learning has been demonstrated to produce lower stress and greater knowledge retention than real-life environments. Simulation learning experiences are positive reinforcements of critical clinical concepts and decision making. This new technology has created a challenge for educators to keep pace with the quickly changing clinical environment

Faculty are positioned to provide a variety of physiological scenarios to facilitate the students' application of the nursing process, including situational assessment, prioritizing needs, implementing appropriate interventions, and evaluating patient care outcomes. For example, the student might have to respond to a bleeding disorder during delivery or a postpartum hemorrhage. *Newborn HAL* can be taken to the classroom and during a discussion about epilepsy he might have a seizure right in front of the class—the students would then have to implement activities to help *HAL*. In another discussion about transient tachypnea (difficulty with breathing) of the newborn, *Newborn HAL* might increase his breathing and turn dusky and the student nurse would have to intervene to provide more oxygen to him. There are NUMEROUS scenarios that can be provided to allow the students' to respond as the nurse—the scenarios are almost unlimited! Simulation learning allows the students to learn how to "think and respond like a nurse" in a non-threatening environment before they actually have to be the nurse.

We respectfully request $42,093.51 to purchase NOELLE Childbirth/Newborn HAL Simulators for the Shreveport Nursing Laboratory.

Description of Equipment	Quantity	Unit Price
1. NOELLE Maternal & Neonatal Birthing Simulator with Newborn HAL	1	$42,093.51
2.Extended Warranty	1	Included in above quote
3. Applications, Installation & Training	1	"
4. Shipping		"

3. State measurable objectives that will be used to determine the impact/effectiveness of the project.

- Improve course and skills mastery in Women's Health and Pediatric content through use of a simulated laboratory setting which provides for lower stress and greater knowledge retention.
- Reinforce student mastery of critical thinking and the nursing process within the healthcare setting.
- Supplement student learning by responding to case situations to actualize learning from theory and clinical experiences not always available within the healthcare setting.

4. Indicate how each project objective will be evaluated.

- Faculty will validate student knowledge through testing and use of standardized testing measures such as ATI testing.
- Faculty will evaluate student clinical performance and critical thinking skills through the use of a variety of physiological scenarios to facilitate student application of the nursing process.
- Students will demonstrate competency in the clinical setting to meet requirements graduation and licensure for professional practice.

5. If funded, which NSTEP http://www.nsula.edu/nstep/NSTEP.pdf objective(s) will this funding of this project advance. How will funding of the project advance the University and College/unit technology plan?

This project will advance the following objective:
Objective #3- To upgrade student technology laboratories with modern technology

The College of Nursing's technology plan includes upgrading all simulation laboratories with equipment that closely mirrors the technology that is utilized within the healthcare environment. The addition of these simulators will support and advance this plan.

6. Provide a justification for funding of this project. Estimate the number of students that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.

- An estimated average of 250 students per year will have access to this simulation equipment. The simulators will be placed in a laboratory setting to be utilized for student learning opportunities.
- Maternal-Newborn and Pediatrics provide essential specialty nursing that involves high acuity care with vulnerable high-risk populations.
- The simulators will provide the student with hand's on clinical opportunities that, due to the unique physiological aspect of pregnancy and childbirth, cannot be experienced with non-specific laboratory simulators

- **Item #1 NOELLE S575 with Newborn HAL $34995.00**
  The NOELLE S575 includes NOELLE, newborn HAL, two 17 inch touch screen monitors with computer control, and two wireless tablet PCs.
  Accessories
  100-240 VAC charger
  Blood pressure cuff
  CDROM tutorial
  Carrying cases

- **Items #2 Extended Warranty $5250.00**
  Extended warranty to three years.

- **Item #3 Applications, Installation & Training $1500.00**

- **Item #4 Shipping $348.51**

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.

Mollie Moody, MSN, RN: 3rd Level BSN Coordinator
Susan Pierce, EdD, MSN, RN, CNE
Susan Snell, MSN, APRN, BC, FNP
Alana Bragg, MSN, RNC, WHNP

- The above faculty members are assigned to the College of Nursing Shreveport campus. Combined these faculty have an extensive clinical background in Maternal-Child Nursing with 64 years as Nurse Educators. In addition, Susan Pierce has a Doctorate in Educational Technology.

8. Describe any personnel (technical or otherwise) required to support the project/initiative.

Faculty will be supervising students in the use of the equipment in the laboratory setting. No additional personnel will be needed to meet the objectives of this proposal.

Gaumard provides installation and training services in the use of the simulators, with support personnel available by telephone Monday-Friday 8:00am-4:30 pm ET.

9. Provide a schedule for implementation and evaluation.

- Decision to fund proposal: November, 2007
- Monies made available during first quarter of 2008
- Simulator equipment to be ordered the week monies become available
- Shipping time is overnight
- Implementation in laboratory to begin upon receipt and training
- Evaluation to begin immediately upon receipt of the equipment in the lab by the faculty

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.

Upgrades will be provided at no charge by the manufacturer.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through a Student Technology Fee.
If you are requesting equipment that will be either/or checkout to students or moved within the department, you must provide a checkout/loan policy.

The equipment will be stored in a locked laboratory where there is a Laboratory Coordinator on duty during the normal hours of business. Some laboratory hours are periodically scheduled for students in the afternoons or on weekends, however, there is always a faculty/lab coordinator member present. The only people who have access or a key to this laboratory are the faculty and the security guard onsite. The students will only be able to use the equipment with a faculty member present.
The equipment is placed in the laboratory and will not be checked out to students or removed from campus.

Attach two (2) letters of support for the project from the following individuals: the requesting department's Dean, the appropriate Vice President (for non-academic units), or the SGA President from the requesting campus (for student requests).

Student Technology Fee Grant Proposal Checklist:

_X_	Is all information requested provided (items 1 – 11)?
_X_	Is a detailed budget attached?
_X_	Is all specifications, description, model number, quotation, cost, state contract number, and vendor provided for each item?
_X_	Are your two (2) letters of support attached?
_N/A_	If equipment is to be checked-out/loaned, is your policy attached?

NOELLE with Newborn *HAL* (S575) is not currently on State of Louisiana Purchasing contract. Sole Manufacturer letter is attached to the quotation by the Gaumard Scientific Company.

Gaumard®
Simulators for Health Care Education

GAUMARD SCIENTIFIC COMPANY
14700 SW 136 STREET
MIAMI, FL 33196
USA

Quotation

Quote Number:
000101807-04

Quote Date:
Oct 18, 2007

Quoted to:

Northwestern State Univ. of Louisiana
1800 Line Avenue
Shrevenport, LA 71101
USA

Customer ID	Good Through	Payment Terms	Sales Rep
NORT027	11/17/07	Net 20 Days	Bill Broach

Quantity	Item	Description	Unit Price	Extension
1	S575	NOELLE Maternal & Neonatal Birthing Simulator w. Newborn HAL.	34,995.00	34,995.00
1	S575 EXW	Extended Warranty for S575 (Covers years 2 & 3)	5,250.00	5,250.00
1	S575.000	One Day of In-Service Training & Installation	1,500.00	1,500.00
		Estimated Time of Delivery: December 2007		
		Shipment Via: UPS		
			Subtotal	41,745.00
			Sales Tax	
			Freight	348.51
			Total	42,093.51

Gaumard®
Simulators for Health Care Education

14700 Southwest 136 Street
Miami, Florida 33196
Telephone: 305-971-3790 x2006
Fax: 305-667-6085

October 16, 2007

Dr. Norann Planchock
Dean of the College of Nursing
Northwestern State University of Louisiana.
1800 Line Avenue
Shreveport, LA 71101

Dear Dr. Planchock:

This is to confirm that Gaumard Scientific Company located at 14700 SW 136 Street, Miami, Florida 33196; is the Sole Manufacturer for the following models: **S575** – Maternal and Neonatal Birthing Simulator and the **S3010** Newborn HAL.

If you should have any questions, please feel free to contact me.

Sincerely,

Bill Broach
Gaumard Scientific
bill@gaumard.com
786-214-1934

NOELLE™ S575 is untethered with wireless communications

You know from experience that not all deliveries are uneventful ... you always hope for the best outcome for mother and newborn, but prepare and train for the unexpected.

That's why Gaumard has developed a family of simulators that provide care in motion. Each simulator provides total mobility ... you can rush your NOELLE from the Labor and Delivery Room to the OR. You can rush her newborn from Labor and Delivery to NICU. You can rush mother and child from an accident scene to the ER.

Gaumard simulators provide total real-time experience. There is no switching off to stand-by simulators. The mobility requirements of your OB training program will be complete with the S575.

NOELLE features

- Breathing and pulses
- Vertex, breech and C-section deliveries
- Shoulder dystocia and PPH
- Dynamic perinatal monitor
- Maternal and neonatal vital signs monitors
- Control NOELLE between rooms and floors of buildings
- NOELLE smoothly transitions between physiological states in response to commands from a wireless PC
- Use our scenarios or quickly generate your own
- Multiple heart and respiratory sounds
- Pulses are continious and synchronized with ECG
- Speech and convulsions
- Use real EMS equipment
- Caregiver actions time stamped and logged
- Evaluate acions with a single click and insert notes in a real time performance log

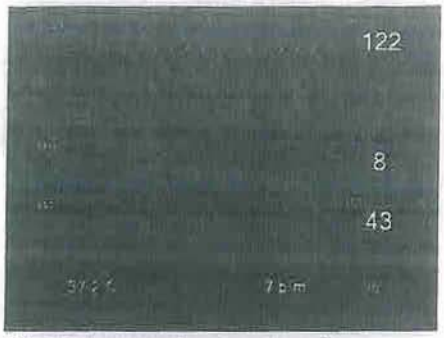
NOELLE's Newborn HAL features

- breathing and pulses
- color and vital signs that are responsive to hypoxic events and interventions
- physiologic modeling and trending

NOELLE and her newborn have wireless communication and documentation, self-contained respiratory and circulatory functions, and are fully responsive in transit with comprehensive performance feedback

NOELLE™ S575 perfect for competency based programs

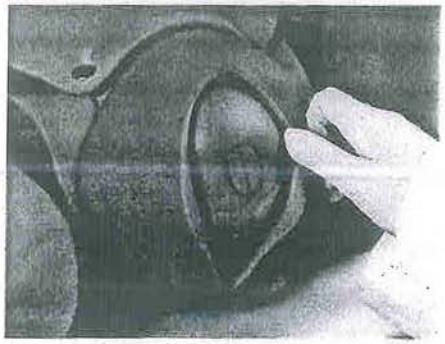
NOELLE™is perfect for competency based programs since each delivery can be precisely controlled while devices track student actions. The fetus may be manipulated to resolve a delivery dilemma. See instant feedback of force and torque on the fetus as well as its head position. This data is graphed and synchronized with our fetal monitor for debriefing and evaluation. The fetus is released on command after the Instructor has observed and logged required competencies. Students are then able to complete delivery.

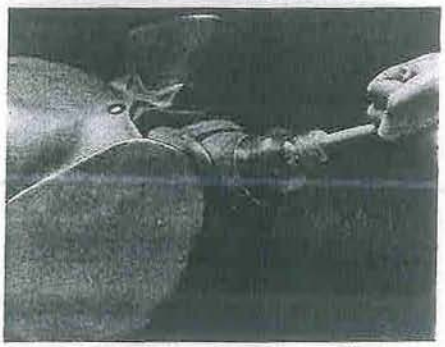


Wirelessly control maternal monitor, change vital signs, simulate cardiac emergenices and delivery dilemmas.

Normal Vaginal & Instrumented Delivery

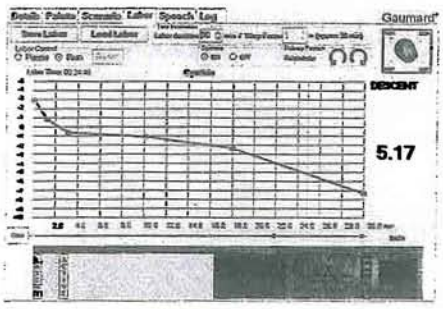
- Fetus descends and rotates internally as it moves down birth canal
- Extensible birth canal
- Fetal external rotation aligns shoulders with vulva
- New fetal head skin for use with most vacuum devices and forceps

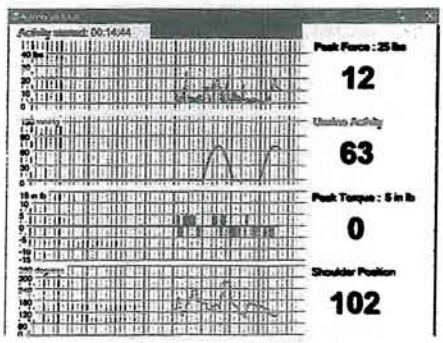




Shoulder Dystocia

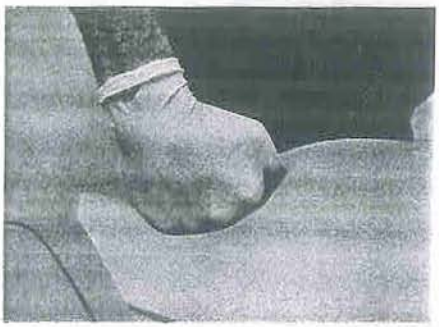
- Use delivery Profile Control to specify exactly when the "turtle sign" will occur and how long you allow students to deal with this dilemma
- Relieve dystocia using suprapubic pressure, McRobert's maneuver, posterior arm sweep, fetal rotation or "elbows/knees" position

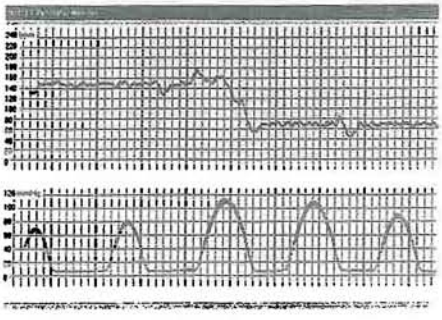




Intrapartum Modeling or Trending

- Use our physiologic model that controls skin color and vital signs
- Trend color and vital signs as you wish

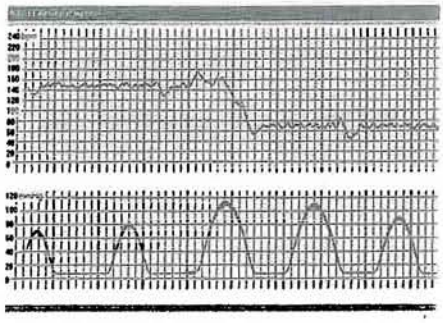




NOELLE™ S575 Maternal and Neonatal Birthing Simulator

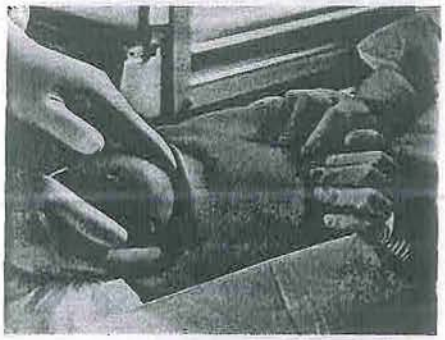
Breech Delivery

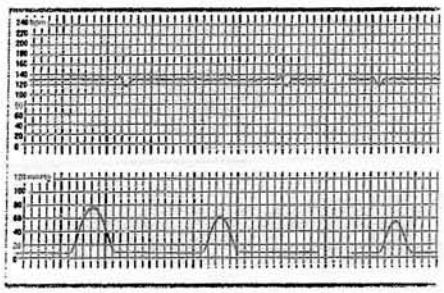
- Practice vaginal breech deliveries
- Learn to free the legs using Pinard maneuver
- Once delivered the neonate requires resuscitation
- Change maternal vital signs or fetal heart tones during the scenario



C-Section

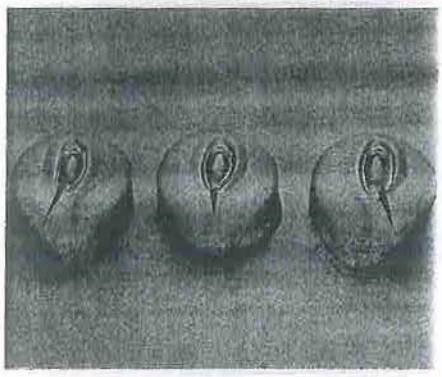
- Special abdominal cover having tissue layers students can dissect
- Practice delivery of either vertex or breech presentation
- Change vital signs and fetal heart tones with this or any other scenario " on the fly"

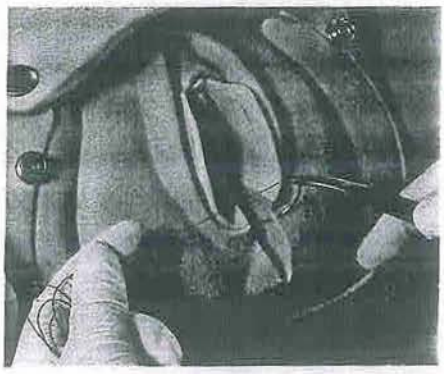




Episiotomy Repair

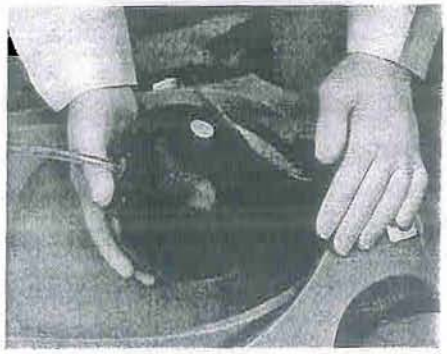
- Deliveries may require an episiotomy to prevent an uncontrolled tear of the vulva
- These reusable repair modules also feature tears of the labia and periurethra



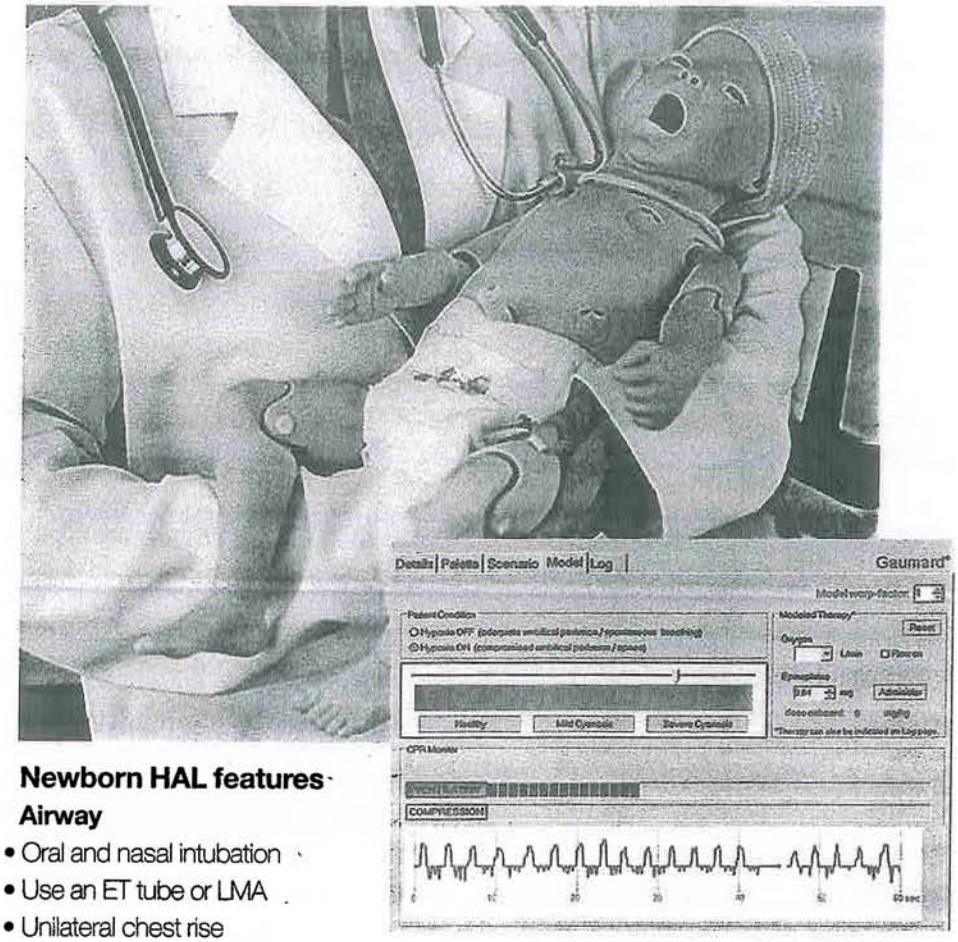


Postpartum Hemorrhage and Fundal Massage

- This postpartum uterus bleeds through cervical os and cervix
- The uterus can be massaged and it shrinks. Instructor then reduces bleeding
- Students can also administer medication via IV, IM or rectal sites



NOELLE™ 575 ... wireless and fully responsive even while being carried



Color, motion and vital signs respond to hypoxic events and interventions

Newborn HAL features

Airway

- Oral and nasal intubation
- Use an ET tube or LMA
- Unilateral chest rise
- Multiple upper airway sounds

Breathing

- Control rate/depth of respiration
- Ventilation is measured and logged
- Independent left and right lung sounds
- Breath sounds

Circulation and color change

- Multiple heart sounds, rates, intensities
- Chest compressions measured/logged
- Blood pressure and IV
- Color, vital signs, and motion respond to hypoxic events and interventions
- Umbilical, brachial, and scalp pulses operate continuously
- Pulse strengths vary with blood

More Newborn Features

- Crying and convulsions
- View ECGs with physiologic variations generated in real-time
- Conductive skin regions
- Apply real electrodes
- Vigorous cry synchronized breathing
- Programmable arm motion

Simulator

- The NOELLE S575 includes NOELLE, Newborn HAL, two 17" touchscreen monitors with computer control, and two wireless tablet PCs

Control

- Change physiologic states using wireless control
- Use our scenarios or quickly build your own
- Sensors provide feedback on performance
- Changes in condition and care are time stamped and logged
- Instructors evaluate interventions and insert notes on real-time performance log

Accessories

- 100-240 VAC charger
- Blood pressure cuff
- Instructions
- CDROM tutorial
- Carrying cases

Other

- One year limited warranty, extended warranty to three years
- Installation and training services available
- NOELLE support personnel available weekdays 8:00 am to 4:30 pm ET

NOELLE with Newborn HAL®

S575	**$34995**

NOELLE without Newborn HAL®

S574	**$24995**

FOB Factory. Miami. FL. USA

Patented: other patents pending

Training at our facility or yours
One year limited warranty extended
warranty to three years

Northwestern State University

A Member of the University of Louisiana System

College of Nursing
1800 Line Avenue
Shreveport, Louisiana 71101-4653

Office of the Dean
Telephone (318) 677-3100
Fax (318) 677-3127
PlanchockN@nsula.edu

October 26, 2007

Student Technology Fee Grant Review Committee
Northwestern State University
Natchitoches, LA 71497

Members of the Committee,

This letter is to convey my strong support of the proposal submitted by the College of Nursing faculty to acquire the maternal and newborn simulation equipment for the clinical laboratory on the Shreveport Campus. The emphasis on supporting student learning through the provision of technology-advanced equipment is not only imperative, but an increasing requirement by the accrediting and licensing agencies for both undergraduate and graduate nursing programs. Our students must become clinically competent in the performance of these skills as they remain a critical component of the patient assessment practice within the health care environment within which they will be employed. Additionally, the opportunity to practice within a simulated environment enhances student learning prior to exercising these practices in the high-risk patient care environment. Students gain superior confidence and competence that can safely be transferred to the actual patient care situation. Student learning and patient safety become the top priorities served by exercises in a simulated laboratory first! It is essential that the College of Nursing increase cutting-edge technology integration within the existing learning environment for nursing students and your approval of this proposal will foster our initiative in that regard.

Your approval of this proposal will make our students the ultimate benefactors of greater learning support and opportunities. I look forward to hearing of your approval action in the near future.

Sincerely,

Norann Y Planchock

Norann Y. Planchock, PhD, APRN. BC, FNP
Dean and Professor
College of Nursing

NORTHWESTERN
State University
A Member of the University of Louisiana System

College of Nursing
1800 Line Avenue
Shreveport, LA 71101-4653
Telephone (318) 677-3100
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Office of the Dean
Graduate Studies and Research in Nursing
Undergraduate Studies in Nursing
Non-Traditional Studies in Nursing
Radiologic Technology

October 24, 2007

Information Technology Fee Grant Committee
Northwestern State University
Natchitoches, LA 71497

Committee Members,

On behalf of the Shreveport Student Government Association (SSGA), I am pleased to offer this letter in support of the proposal by the College of Nursing to acquire the Maternity and Infant simulators for the clinical nursing laboratory in Shreveport. Simulated laboratory experiences related to labor and delivery, the early care of the newborn, and infant are exciting. They will provide our students simulation opportunities that we have never had before in these areas!! The opportunity to be able to have simulated experiences will certainly better prepare us for the actual experiences with patients. In addition, it is critical that we continue to increase these technology-based simulated experiences for students to enhance understanding and learning, particularly since the numbers of students are increasing in proportion to the numbers of maternity and pediatric patients available during our assigned learning experiences. This equipment will not only enhance undergraduate student learning, but will provide us opportunities to be better prepared to be successful on the RN licensing examination. These factors are so important to our future practice as registered nurses!

Please consider supporting this proposal in a favorable manner. If I can be of assistance to the committee, please do not hesitate to call upon me.

Respectfully,

Kimberly A. French

President
SSGA