

Executive Summary: Simulation System Procurement

Hardin-Simmons University is pursuing the acquisition of a comprehensive suite of simulation equipment to enhance the training and education of its nursing and healthcare students. This initiative focuses on equipping six Simulation Laboratories and one Skills Training Laboratory with state-of-the-art patient simulators, observation tools, and supportive technologies. Below is an overview of the key components and their intended impact:

Core Simulation Equipment

1. Advanced Birthing Simulator

- **Description:** This simulator includes a tablet PC preloaded with clinical scenarios, a deep vein thrombosis leg, and interchangeable non-pregnant and pregnant abdomens. It enables high-fidelity simulation of labor and delivery, addressing various obstetric emergencies and routine childbirth practices.
- **Key Features:**
 - Realistic birthing scenarios to prepare students for maternal care.
 - Interchangeable components for expanded use.
 - Customizable software for tailored educational needs.
- **Quantity:** 1 unit.

2. Advanced Neonatal Simulator

- **Description:** A neonatal simulator equipped with a tablet PC for scenario management and preloaded cases. This device supports training in neonatal resuscitation, critical care, and developmental assessments.
- **Key Features:**
 - Three-year service plan with regular software updates.
 - Includes life-like anatomical features for detailed neonatal care practice.
 - User-friendly interface for scenario customization.
- **Quantity:** 1 unit.

3. Advanced Pediatric Simulators

- **One-Year-Old Simulator:**
 - **Description:** Designed to simulate the physiology and responses of a one-year-old child, this simulator addresses infant-specific care scenarios, including airway management, intravenous therapy, and cardiac emergencies.
 - **Key Features:**

- High anatomical accuracy with flexible response options.
- Extended service plans and technical support.
- Detailed feedback metrics for performance evaluation.
- **Quantity:** 1 unit.
- **Five-Year-Old Simulator:**
 - **Description:** Provides multipurpose simulation for pediatric care scenarios involving a simulated five-year-old child. It supports advanced training in trauma response, medication administration, and respiratory care.
 - **Key Features:**
 - Interactive features to mimic realistic child responses.
 - Comprehensive service and warranty package.
 - Preloaded scenarios addressing common pediatric conditions.
 - **Quantity:** 1 unit.

4. Advanced Adult Simulators

- **Female Simulator:**
 - **Description:** An advanced multipurpose adult simulator focused on female physiology, designed for acute and chronic medical scenario training, trauma management, chronic disease treatment, surgical procedures, and emergency response and including scenarios for gynecological care.
 - **Key Features:**
 - Offers customizable software for varied clinical conditions.
 - Geriatric conversion kit
 - Supports real-time feedback during simulations.
 - **Quantity:** 1 unit.
- **Male Simulator:**
 - **Description:** An advanced multipurpose adult simulator focused on male physiology, designed for acute and chronic medical scenario training, trauma management, chronic disease treatment, surgical procedures, and emergency response.
 - **Key Features:**
 - Geriatric conversion kit
 - High-fidelity physiological features.

- Preloaded with diverse clinical scenarios.
- **Quantity:** 1 unit.

5. Adult Clinical Nursing Simulator

- Female Simulator
 - **Description:** A multipurpose adult simulator focused on female physiology.
 - **Key Features:**
 - Catheter simulation capacity
 - Finger stick bleed function
 - User-friendly interface for scenario customization.
- **Quantity:** 4 units.
- Male Simulator
 - **Description:** A multipurpose adult simulator focused on female physiology.
 - **Key Features:**
 - Catheter simulation capacity
 - Finger stick bleed function
 - User-friendly interface for scenario customization.
- **Quantity:** 4 units.

All units must include

- ✓ **3-year service plan**
- ✓ **1-year warranty**
- ✓ **Installation and training**
- ✓ **Tablet PC preloaded with control software**
- ✓ **Relevant simulated learning modules and guide**
- ✓ **ECG Snap option**
- ✓ **Wireless streaming audio**
- ✓ **Bedside virtual monitor accessory**
- ✓ **Zoll defibrillation snap cable**
- ✓ **RF and Bluetooth communication modules**
- ✓ **Battery charger**
- ✓ **Defibrillation site adapter**
- ✓ **Carrying case**
- ✓ **Accessories**
- ✓ **User guide**

A/V Observation Equipment

To support effective learning and review, the project includes advanced audio-visual observation systems. The simulation laboratories will be equipped with full A/V suites for real-time observation, recording, and debriefing, while the Skills Training Laboratory will feature basic setups with video and audio systems for eight beds and simulation mannequins. Detailed requirements and equipment features are outlined in the RFP document.

- **Full A/V Suites for Simulation Laboratories:**
 - Includes multiple high-definition cameras for various angles.
 - Live streaming and recording capabilities for real-time observation.
 - Secure storage and encrypted data management for session recordings.
- **Basic A/V Setup for Skills Training Laboratory:**
 - Eight video and audio recording systems, each tailored to capture individual bed and mannequin activities.
 - Simplified playback and annotation tools for quick reviews.

Impact and Goals

This initiative aims to:

- Enhance the realism and effectiveness of nursing simulations.
- Provide students with hands-on experience in managing complex medical scenarios, including emergency response and routine care.
- Equip faculty with tools to monitor, assess, and improve student performance through detailed debriefing sessions.
- Support interdisciplinary training, bridging gaps between different fields of healthcare.

Vendors interested in providing proposals or quotes for this project are encouraged to contact Andrew Briscoe at andrew.briscoe@hsutx.edu for further details and to review the RFP document.

Hardin-Simmons University remains committed to investing in cutting-edge technology to elevate its healthcare education programs and ensure that its students are well-prepared for real-world challenges.