Richard A. Henson Medical Simulation Center



About the Simulation Center

This collaborative, multidisciplinary state of-the-science learning facility provides high-quality, life-like simulation experiences for students and community professionals across diverse health care and non-health care fields. The center is designed to be a "safe space" to practice, make mistakes, and refine clinical judgement and decision making skills.

Working side-by-side, learners from different professions are immersed in realistic simulation experiences that enable them to implement evidence-based interventions and develop communication skills across an interdisciplinary team.

At the center, learners have the opportunity to care for patients with a wide variety of disease conditions, illnesses and injuries through the use of wireless high-fidelity patient simulators (technologically advanced manikins) and standardized patients (highly trained actors). The experience, in combination with structured debriefing sessions and the opportunity to review the encounter via video and audio recordings, offers learners a rich educational experience.



Our Suites and Debriefing Spaces

- The Adult Health Simulation
 Suite provides a variety of
 experiences from the first time of
 caring for a hospitalized adult to the
 intensity of managing a patient in
 cardiac arrest. The room can also
 be transformed into a home-care or
 community-based setting.
- The Labor/Delivery/Recovery/
 Postpartum Suite is a realistic
 environment where learners provide
 obstetrical care with a focus on
 safety and teamwork. The room is
 equipped with cameras;
 microphones; a functioning



- Life-like manikins with sophisticated software that simulate demanding clinical situations
- Cameras to record learner interactions for critique by peers and facilitators
- A mental health wing where actors serve as "patients" with behavioral health issues to help students learn effective interventions
- Waiting rooms and a nurses station, replicating a clinical setting

headwall with oxygen, suction and medical air; and specialized overhead lighting.

- The Neonatal Intensive Unit Suite focuses on caring for premature babies and those with serious, life-threatening conditions in an environment without the added anxiety of concerned parents.
- In the Pediatric Simulation
 Suite learners become skilled in
 managing the care of acutely and
 chronically ill children. This suite
 replicates several clinical settings: an
 acute care pediatric hospital room,
 an emergency department setting or
 a medical office setting.
- Two Psych/Mental Health
 Simulation Suites are used for
 experiences in learning how to
 interact effectively with people who
 are experiencing challenges due to a
 change in mental health status.
 These rooms are staged to resemble
 a counselor's office, a psych/mental
 health intake area or an outpatient
 health setting.

Virtual Dissection Lab

This space is home to an Anatomage™ Table, the most technologically advanced, three-dimensional visualization system to conduct virtual dissection. High-



definition images from human and animal cadavers are presented on an interactive, life-sized touch screen and manipulated by learners to master important concepts of normal and abnormal anatomy and physiology.

High-Fidelity Human Patient Simulation Experiences

The center houses a family of life-like manikins that react physiologically as if they were alive. The manikins' software and functions are controlled out of learners' view, contributing to the realism of the scenario and fostering independence in clinical judgment and skill refinement without the risk of patient harm. High-fidelity simulations extend beyond the simulator and include the surroundings, equipment and modes of communication, to help learners suspend disbelief and fully immerse themselves in the experience.

The center is home to an adult male manikin, an adult female who gives birth, two children who replicate 5 year olds, and three newborns. For more information about each,

Continued on back.

CONTACT INFORMATION

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www.salisbury.edu/chhs/simcenter

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please visit www.salisbury.edu/ academic-offices/health-and-humanservices/simulation-center/patientsimulator-experiences.aspx.

An adult/neonatal breathing simulator, the ASL5000™ provides training in ventilation management by simulating almost any breathing profile imaginable – from newborn through adult. Using the ASL5000™, real-life respiratory scenarios can be created.

Mixed reality training wearing a HoloLensTM headset is available for use with our birthing manikin. By synchronizing holograms with the physical world, Obstetric MRTM allows learners to see inside the manikin, observe the dynamic physiology underlying difficult births and promote deeper learning.

Learning Through Interactions with Standardized Patients

The term "Standardized Patient" (SP) is used interchangeably with the term "Simulated Patient" and "Standardized Participant". The Healthcare Simulation Dictionary defines an SP as "a person who has been carefully coached to simulate an

ACADEMIC PROGRAMS

Academic programs utilizing the Simulation Center include:

- Athletic Training
- **■** Exercise Science
- Health and Human Performance
- Nursing
- Respiratory Therapy
- Social Work
- Continuing education programs for health professionals

actual patient so accurately that the simulation cannot be detected by a skilled clinician. In performing the simulation, the SP presents the gestalt of the patient being simulated; not just the history, but the body language, the physical findings, and the emotional and personality characteristics as well" (Society for Simulation in Healthcare, 2020). SPs undergo extensive training to portray various conditions (both physical and mental health) or assist with the realism of simulations involving highfidelity manikins. SPs can be used to teach and assess learners and their skills in simulated clinical environments. Frequently, SPs are asked to give feedback and assist facilitators in evaluating learner performance.

Virtual Health Care Tools

- Simulated Electronic Health **Record:** Health professionals use electronic health records to retrieve information and document care. The Simulation Center provides both experiences through its simulated electronic health record so that learners are more proficient in data collection, patient care planning, and recording of physical examination findings, care provided and patient response. Having a place to document during simulation gives facilitators an opportunity to assess learners' competency to ensure that they are well prepared to enter the workforce.
- BD Pyxis[™] MedStation ES: The BD Pyxis[™], automated medication dispensing device, is widely used in healthcare settings and is an important tool to reduce medication errors. Learners use



biometrics to log in, then identify the correct patient, medication and dose. The system opens the designated drawer that contains the medication, allowing the learner to obtain it and prepare for its administration. Medication-related simulations can also be recorded using newly installed cameras and microphones at the nurses' station.

Health Care Innovations

For over 40 years, SU has been a leader in the education of health care professionals who serve the Eastern Shore of Maryland and the region. Our innovations include offering a baccalaureate degree nursing program since 1979 (our students have the highest five-year average NCLEX pass rate in the state for B.S.N.-granting institutions); offering Maryland's only baccalaureate program in respiratory therapy; incorporating the accelerated second degree B.S.N. program in 1991 to help solve the local and regional nursing shortages (now with 12 and 16 month curriculum plans); and in 2015, SU's first doctorate, the Doctorate of Nursing Practice, which prepares family nurse practitioners and nursing leaders to ease the shortage of primary care providers on the Eastern Shore and across Maryland.

ADMINISTRATIVE CONTACTS

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BY THE NUMBERS

- **1,500:** Students served each year
- **10:** Fields and specialties represented
- **90:** Publications and presentations about Sim Center-based activities
- 15: Community groups served



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