

WE ARE

The Ross and Carol Nese College of Nursing: Welcome to our Simulation Labs!

The Penn State student nursing clinical experience:

- Students experience a broad range of clinical environments and specialties (inpatient, doctor's offices, community settings, prisons, schools, etc.)
- All students complete one full year at Hershey Medical Center (HMC) in Hershey, PA, less than a 2-hour drive from University Park. Students live on the HMC campus for one full academic year
 - HMC is a Level One Trauma Center and offers students clinical opportunities they may not otherwise experience. Our local facilities transport their most severe medical patients to HMC, who has the equipment and expertise to properly treat extreme medical cases
 - Schreyer Honor Scholars, ROTC, and NCAA Scholarship Athletes may or may not be able to experience Hershey, as program demands permit
- Clinicals take place within a 50-mile radius of University Park (or Hershey, for students completing their assigned Hershey Medical Center rotation)
- Clinical practice begins in students' second year; this is one year earlier than many other nursing programs
- Upon graduation, our students have accumulated nearly 900 hours of simulated and in-vitro clinical experience!
- We practice sustainability to preserve our planet for future generations: Supplies used in simulation labs are donated as expired from local hospitals and doctor's office or purchased new, and we recycle as much as possible
- Questions? Visit our website nursing.psu.edu or email the Student Success Center at nursing@psu.edu

Welcome to the Advanced Practice (AP) Lab!

- Simulated clinical experiences allow students to practice in a safe, supportive, confidence-building environment. Research supports simulation as an excellent teaching tool, as it removes the fear factor from the learning process
- In the AP Lab, 4th year spend time in this room practice inserting IV's and drawing blood
- Various arms with different skin textures and veins are used for students to practice realistic venipuncture procedures
- Harvey (the half-manikin on the far side of the room) replicates various heart arrhythmias for students to practice identifying and responding
- Graduate students practice advanced head-to-toe assessments and other skills

Welcome to the Critical Care Lab!

- Simulated clinical experiences allow students to practice in a safe, supportive, confidence-building environment. Research supports simulation as an excellent teaching tool, as it removes the fear factor from the learning process
- Patients may have multiple conditions or an extensive history, making the nurse's job a bit more challenging; Critical Care experiences include code scenarios or rapid declines in patient health status
- Sim Man in the center bed is affectionately named "Norman" (or "Norma", as gender parts are interchangeable) and at about \$200,000, is our most expensive manikin. Hershey Medical Center's most expensive manikin costs about \$400,000!
- Norman can talk, cry, breathe, moan, excrete blood, tears, sweat, and spinal fluid, dilate his pupils, and more!
- Clinical simulation faculty change the rate and pattern of breath, heart sounds, and other vital signs to respond to students' nursing interventions. They control cardiac, circulation and airway patterns and can induce various medical complications to provide students with a robust clinical experience
- Students administer CPR; the manikin software monitors the depth of compressions and hand placement to provide students with feedback on their effectiveness
- Clinical simulation faculty observe and control conditions through the two-way mirror, work closely with students in the lab, or record simulation sessions to debrief in class
- Faculty play the role of a doctor or member of the healthcare team; student nurses practice making phone calls to obtain medication orders, consult with or update the doctor on a clinical situation

Welcome to the Maternity Lab!

- The Sim Mom manikin gives birth to a baby that fits in fetal position inside her abdomen; it's incredibly similar to a live birth! She has a built-in hydraulic system which mimics contractions and allows her to bear down/push for delivery
- Students monitor the manikin's contractions, vital signs, fetal heart sounds, and progression of labor
- Both the Sim Mom and Sim NewB baby can be programmed for a variety of realistic birthing scenarios. Both execute vocal responses (moaning, crying, etc.) and respond to students' nursing interventions
- Just like a realistic labor and delivery, Sim Mom experiences contractions and delivery is complete with fluid discharge and "cutting" the cord using plastic scissors
- Birth can vary from normal to having a variety of conditions:
 - shoulder dystocia (shoulders fail to pass after the head)
 - breech baby (positioned feet first)
 - post-birth hemorrhage
 - prolapsed cord – cord comes out first (a rare occurrence!)
 - nuchal cord (umbilical cord is wrapped around baby's neck)
- The only condition Sim Mom cannot realistically simulate is a cesarean section since it would involve cutting into our manikins! Rather, students simulate C-sections with minor adaptations
- Sim NewB baby can:
 - turn blue and exhibit varying oxygen levels
 - have a seizure.
 - coo and cry
 - pulse in its umbilical cord
- Clinical simulation faculty observe and control conditions through the two-way mirror, work closely with students in the lab, or record simulation sessions to debrief in class

- Faculty play the role of a doctor or member of the healthcare team; student nurses practice making phone calls to obtain medication orders, consult with or update the doctor on a clinical situation

Welcome to the Pediatrics Lab!

- Pediatrics ranges from very young children to adolescents, sometimes even up to 21 years of age depending upon diagnosis, available providers, and other factors
- Students work in pediatric simulations involving respiratory issues, seizure disorders, critical code scenarios, etc.
- The colorful [Broselow crash cart](#) in this lab is color-coded as a quick reference. In an emergency situation when a nurse does not have time to thoroughly assess a child's measurements, each particular drawer color contains equipment to fit the approximate size of the child being treated
- Students learn to communicate with an adolescent patient differently than they would with an adult patient; for example, to ask questions differently, take extra time to put the child at ease
- Especially when working with children, nurses must also be supportive and effective communicators with family members. Students practice interacting with parents and other family members of patients in [Standardized Patient Simulations](#), where actors present realistic scenarios for student nurses to develop their skills in working with family and other interpersonal dynamics
- Clinical simulation faculty observe and control conditions through the two-way mirror, work closely with students in the lab, or record simulation sessions to debrief in class
- Faculty play the role of a doctor or member of the healthcare team; student nurses practice making phone calls to obtain medication orders, consult with or update the doctor on a clinical situation

Welcome to the “Pods”!

- In the Pods, students develop foundational skills and practice nursing fundamentals
- Students spend fall of their second year in the Pods, which prepares them for their spring semester clinical rotation in local nursing homes
- The four connected rooms comprising the center of this floor are designed to be the same- check out each one! Beds are set up similarly to hospital rooms to ensure students develop transferable skills to real-world nursing practice
- Students use real-life medical equipment and learn how to properly document patient interactions using Electronic Health Records (EHR) software, similar software to that used in hospitals and medical offices, for documentation and medication administration purposes
- Skills learned include how to:
 - conduct head-to-toe assessments covering all systems of the body
 - take blood pressure, pulses, and all major vitals
 - identify a healthy ear, eye, nose, and mouth
 - move a patient properly to avoid injury to the patient or themselves
 - transfer patients from other assistive devices, wheelchairs or stretchers
 - assist a patient with toileting
 - make a bed with hospital corners
 - give a bed bath
 - practice “AM” care such as dressing and shaving a patient
 - empty/clean bed pans, urinals, and catheter bags
 - insert and remove catheters
 - use proper personal protective equipment (also called PPE) such as gloves, gowns, and masks for all isolation procedures
 - administer all types of medications (pills, liquids, drops, patches, injections, inhalers, etc.)
 - practice different types of injections on injection pads, as well as oranges and hotdogs which provide a similar tactile experience

Simulation Observation Room

Our holistic approach to nursing education and patient care

- Students participate in debriefing sessions after each simulation to process the experience and review what went well versus what they might do differently to achieve better patient outcomes
- Student nurses work in teams and take turns leading or contributing in other important ways; healthcare is a team sport!
- Simulated clinical experiences allow students to practice in a safe, supportive, confidence-building environment. Research supports simulation as an excellent teaching tool, as it removes the fear factor from the learning process
- Clinical simulation faculty observe and control conditions through the two-way mirror, work closely with students in the lab, or record simulation sessions to debrief as a teaching tool
- Penn State Nursing takes a holistic approach to patient care. A patient is more than a diagnosis! Student nurses are taught to effectively manage patients' medical and physical conditions while also supporting their social, intellectual and emotional needs
- Burnout is a healthcare crisis! We want our students to have long, rewarding careers, so we also talk with our students about practicing holistic self-care and modeling healthy behavior