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The University of Rochester School of Nursing  
revamps its nursing program

# Embracing technology to revolutionize nursing education



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# Framing the possibilities



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More than a decade ago, savvy leaders at the University of Rochester School of Nursing recognized rapid changes that were affecting the U.S. healthcare system. For instance, a predicted nursing shortage was looming large. The nation's hospitals were straining to maintain enough nurses at the bedside, and nurses were beginning to leave the profession earlier in their careers.

## *Client Snapshot*

University of  
Rochester  
School of Nursing

### **30+ programs**

Across a range of degree, post-degree, and certificate options.

### **91%**

Faculty who maintain active practice in clinical settings as part of a leading academic medical center.

### **Ranked No. 22**

Of the best U.S. master's degree nursing programs, according to *U.S. News & World Report* 2024 ranking.

### **Ranked No. 23**

Of the best U.S. undergraduate nursing programs, according to *U.S. News & World Report* 2024 ranking.

### **\$5 million**

In research funding for 2022.



Nursing schools simply couldn't turn out enough graduates to meet the growing demand, due largely to faculty shortages and a shortfall in the availability of clinical training sites. Equally alarming, most graduates from traditional nursing programs lacked the hands-on training and clinical judgment skills needed to safely care for patients.

Compounding all of this, said Lydia Rotondo, DNP, RN, CNS, FNAP, Associate Dean for Education and Student Affairs and Doctor of Nursing Practice (DNP) Program Director, is the very real fact that "healthcare just continues to get more complex, with patients getting sicker and sicker." That fact suggests the need for a paradigm shift, Rotondo emphasized, calling for nursing schools to "prepare practice-ready nurses as knowledge workers in the digital age."

Even before the COVID-19 pandemic, Rotondo added, it was clear that nursing academia was overdue for a transformation. Clearly, sage-on-the-stage, auditorium-style faculty lectures were no longer enough.

Even though nursing students might be able to digest key concepts and memorize rote responses to pass tests, they were nowhere near ready for what awaited them in real-world practice.

Despite the widespread use of digital technologies that were transforming other industries, nursing academia was in danger of staying stuck in the past, slow to integrate technologies that could vastly enhance the educational experience. Even organizations with sophisticated simulation labs weren't using them with students frequently enough to have a meaningful impact.

Meanwhile, nurses working in busy hospital units have become increasingly inundated with enabling technologies as a normal part of their everyday jobs. The juxtaposition between low-tech, traditional academia and today's modern hospital environment was startling — and more than justifying the need for greater integration of technology into nursing academia. For instance, most newly minted nurses had never interacted with an electronic medical record (EMR) system — despite the use of EMRs' ubiquity in acute-care facilities.

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*"When you are a nurse, you are using technologies every day, so it is important to integrate those technologies into the academic setting. Early on, we decided to build a partnership between instructional designers and faculty — a partnership that would foster mutual respect, support, and collaboration. Today we use technology to our advantage to bring clinical to the classroom."*

**Kaitlyn Burke, MS, RN, CCRN, CNEcl, Assistant Professor of Clinical Nursing and Instructional Design Coordinator for the School of Nursing's Accelerated Undergraduate Nursing program**

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# Focusing on the opportunities

The journey to a competency-based nursing program



Rochester's School of Nursing leaders set out in 2018 to reinvent their program by committing to take a competency-based, collaborative approach to the curriculum taught in an active learning environment. Part of that strategy included Nursing Education solutions from Wolters Kluwer.

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The leaders had a deliberate desire to identify evidence-based practices and use digital technology whenever possible to increase the effectiveness — and efficiency — of the training. To define what that approach and practices would look like, the school assembled a multidisciplinary task force composed of faculty and experts in instructional design and information technology.



**D**ean Lisa Kitko, PhD, RN, FAHA, FAAN, said the School of Nursing saw itself in a prime position to drive innovation primarily because the school is part of “one of the few truly integrated academic health systems in the country.” The ability to draw on university resources and expertise was a big plus, as was access to the University of Rochester Medical Center’s hospital network for clinical opportunities. “Knowing that this is where healthcare is going, we made a strategic commitment to academic innovation and experiential learning,” she emphasized.

To launch the planning process, the task force asked a simple question: “How would we prepare today’s nursing students for the clinical setting?” The answer was focusing on helping students think like nurses to become better prepared for a real-world clinical setting. All aspects of the learning and healthcare experience and healthcare were considered to address the challenges today’s nursing students face — from the pedagogy, to the types of learning tools students use, to the physical environment.

That ambitious initiative would take the School of Nursing in a direction few could have imagined at the time and unlike anything else represented in healthcare’s academic world today. Contributions by

instructional designers added a unique and crucial dimension to the transformation, starting with the integration of mobile technology. iPads® were introduced as standard equipment in 2018 through the school’s Redefining Our Classroom (iROC) initiative.

Instead of bringing pen and paper or a laptop to class, every student participating in the accelerated nursing program was equipped with a preloaded iPad that included digital access to the full suite of Lippincott® Nursing Education solutions, where instructional materials and content resources live, in addition to other educational technologies used throughout the curriculum.

“We really wanted to set the foundation,” said Kaitlyn Burke, MS, RN, CCRN, CNEcl, Assistant Professor of Clinical Nursing and Instructional Design Coordinator for the Accelerated Undergraduate Nursing program. “When you are a nurse, you use technologies every day, so it is important to integrate those technologies into the academic setting.” She added that iROC helped “build a partnership between instructional designers and faculty early on” by fostering mutual respect, support, and collaboration. Today, she emphasized, “we use technology to our advantage to bring clinical to the classroom.”

*“...We made a strategic commitment to academic innovation and experiential learning.”*

**Lisa Kitko, PhD, RN, FAHA, FAAN  
Dean, University of Rochester  
School of Nursing, Vice President,  
University of Rochester  
Medical Center**

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# Forward momentum

iROC has earned an Apple Distinguished Schools recognition for continuous innovations in learning, teaching, and school environment — a distinction held by few other nursing schools nationwide.

After initial success, the focus moved to enhancing the learning environments. “We weren’t thinking only about physical space but also about the technologies and strategies we would be using,” said Tara Serwetnyk, EdD, RN, NPD-BC, Associate Professor of Clinical Nursing and Director of Academic Innovation.

“We wanted the ability to have breakout sessions as well as immersive, simulated experiences,” Serwetnyk said. That led to the adoption of multimodal, digitally enabled teaching strategies aimed at increasing clinical judgment skills. The strategies were brought to life in a 26,000-square-foot, state-of-the-art addition to the School of Nursing facility, which the school optimized for experiential learning in every way.

Today the University of Rochester is considered a standout model of innovating nursing education and of meeting the rapidly changing demands of today’s healthcare landscape. Along with transforming nursing students’ educational experience, the university’s School of Nursing has adapted its business model, with its accelerated programs turning out new nurses in as little as 12 to 24 months.

Students accepted to the programs must have a bachelor’s degree in a different field,

and tuition costs are covered for those who commit to work at a University of Rochester network hospital upon graduation, reducing barriers to enrollment while opening the programs to a wider, more diverse population of students.

## Confronting the changing healthcare landscape

Because nursing by its very nature has a strong hands-on clinical component, nursing schools have traditionally relied on collaborations with healthcare systems to provide the necessary clinical hours for graduation. However, finding enough clinical placements and preceptors to support students has become increasingly challenging — especially due to shortages and hospital staffing constraints.

Although the University of Rochester Medical Center provides a fertile training ground for many of the school’s clinical opportunities, its network hospitals, like most hospitals in America, have not been immune to staffing shortages, which limits their clinical capacity. Because that is a systemic problem, a large part of the School of Nursing’s transformation has also focused on generating other kinds of experiential solutions to enable students to practice and hone their skills prior to graduation.

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## Apple Distinguished School

# 1 of 5

*The School of Nursing is one of five nursing schools recognized as an Apple Distinguished School for its innovations in teaching, learning, and creating a digital working environment to better prepare the nursing workforce of tomorrow.*



## Winner of the HEED Award

# 7X

*Received a seventh consecutive HEED Award (Health Professions Higher Education Excellence in Diversity) from INSIGHT into Diversity magazine in October 2023, demonstrating the school’s commitment to better educate a culturally sensitive and attentive healthcare workforce.*

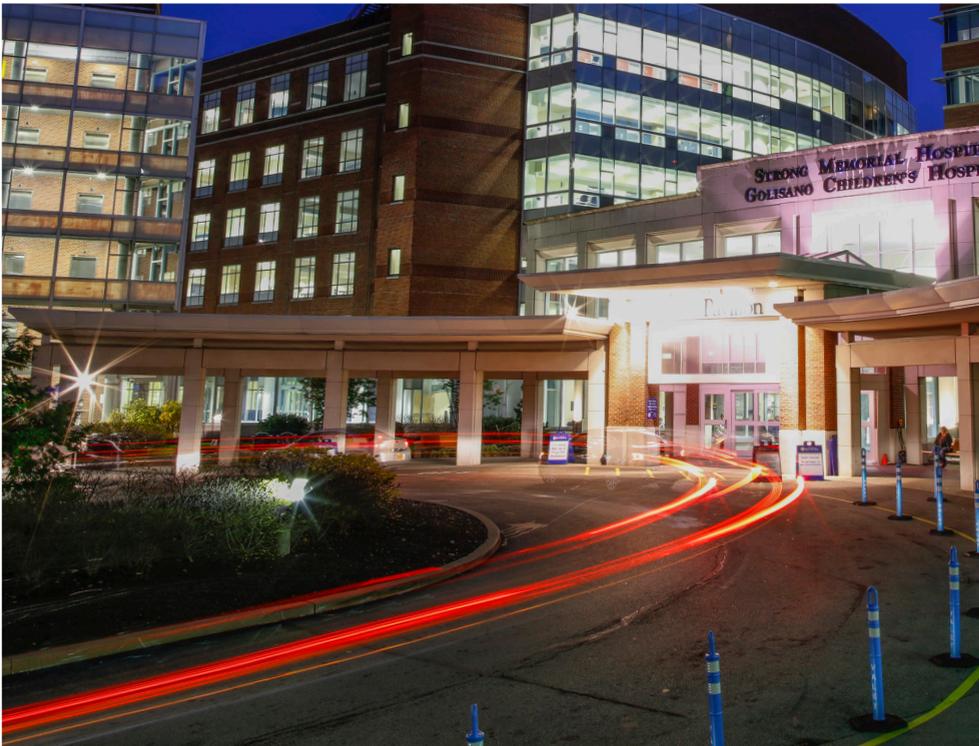
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Data in New York State demonstrates that nursing graduates are successful with a certain amount of simulation compared with 100% clinical hours, which led New York to pass legislation in 2023 that permits nursing schools to substitute up to a third of clinical hours for simulation. The legislation aims to address New York's nursing shortage and aligns the state's standards for nursing students with 31 other states that offer similar simulation programs.

"Why did the University of Rochester immediately become different from every other nursing school in New York State?" asked Kitko. "It's because we've invested in space and technology, which puts us already far ahead of the game."

The School of Nursing is uniquely poised to take advantage of the new law, having proactively invested in training materials, space, and technologies that increase the use of interactive teaching methods.

The investment also underscores the school's readiness to expand its enrollment and deliver the most impactful and most advanced learning experiences for its students — not only to meet critical workforce shortages but also to produce graduates who will be ready to shape future advances in patient care as nursing educators, researchers, and clinicians.



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### **An innovative partnership**

*To combat the region's nursing shortage, the University of Rochester Medical Center and the School of Nursing announced an innovative program in early 2023 to provide students with a tuition-free education in the form of a scholarship and a forgivable loan. In fall 2023, the first cohort of 40 nursing students began the accelerated program and will begin practice as nurses at Strong Memorial Hospital or Highland Hospital in 2024.*

### **Projected Nurse Shortage**

40,000  
by 2030

*New York State faces a projected registered nurse shortage of 40,000 by 2030 due to a combination of burnout, an aging population, and a wave of retirements.*

# Fostering innovation

Instructional designers, the information technology team, and faculty collaborate to reinvent nursing education

Integral to the School of Nursing program is its blended team strategy — essentially an extension of the initial planning task force. The strategy is unique in the industry, with representation from leadership, faculty, IT, and instructional design—interacting as co-collaborators—being the “secret sauce” behind the successful transformation. Each expert brought a slightly different perspective when it came to examining challenges the healthcare and nursing industries face. Together members of the task force explored ways to better meet the needs of a changing student population—especially needs related to the accelerated programs.

Born out of the school’s education mission, three groups—faculty, information technology, and instructional design—focused on pedagogy and technology-enabled learning strategies. The three groups arrived at five key attributes of 21st-century nursing education to guide their journey within the School of Nursing learning organization. The task force’s development of the attributes led to the defining of an overarching mission—starting with iROC—that would also drive the larger strategy: that iROC will prepare nurses of tomorrow through enhanced student engagement, ongoing faculty development, and optimization of technology.

“Our mission and goals assume that learning happens anywhere today, thanks to mobile technology advances,” said Burke,



*The School of Nursing has transformed with a vertical expansion — completed in spring 2022 — that features:*

**26,000 square feet** of experiential learning and student-centered spaces

**A skills lab** that features 20 bays, including 15 patient beds, five patient exam tables, and a critical-care system with a patient lift

**Four simulation rooms** that feature high-fidelity manikins with patient beds, a patient monitoring system, and a one-way mirrored window for observation from the control room

**Eight experiential learning rooms** that serve as multifunctional instructional rooms, each of which features an exam table covered by a simulation video capture system

**Two extended-reality rooms** that will accommodate alternate reality and virtual reality technology

**Take the virtual tour ->**

adding that “the learning should be provided for students in multiple ways to enhance engagement.” Keeping a diverse student population in mind includes both (1) designing a curriculum that meets the needs of all learners by infusing technology as needed in collaborative workspaces to reinforce concepts and (2) providing opportunities for students to practice in ways that mimic real-world bedside nursing.

## Re-engineering the learning environment

To fully make the shift to experiential, competency-based learning, the School of Nursing task force knew it had to go beyond iROC to address the limitations of the existing training facility, which consisted of a small number of auditorium-style classrooms.

In contrast, the new, 26,000-square-foot, three-floor expansion is part hospital and part high-tech learning laboratory. It includes a 20-bed skills lab furnished with the same equipment students will find in a hospital setting. It also includes four simulation labs with high-fidelity human simulation manikins, two extended reality rooms featuring alternate reality and virtual reality technology, customizable experiential and clinical learning rooms, and an expanded student lounge with study spaces.

The expansion gives ample space for the program’s 169 faculty members and nearly 700 students, which represents a 50% rise in enrollment since 2016. By sheer design, it provides many more opportunities to collaborate in small- and large-group settings, as well as the ability to simulate clinical experiences and even facilitate escape room



exercises, all of them aimed at applying knowledge in a low-stakes, high-impact learning environment.

Facilitating the immersive learning experiences are the School of Nursing faculty, who have shifted away from being centralized, sage-on-the-stage figures at the head of the room to becoming guides-on-the-side by embracing student-centered learning and engagement.

Experiential learning opportunities such as low- and high-fidelity simulation start in the first week of the program. Within a 12-month time frame, students will have participated in multiple skills lab sessions, 15 virtual-reality scenarios, and 43 simulations. Faculty use the flipped-classroom model, which introduces students to foundational content in advance so that synchronous class time can be dedicated to application-based activities and hands-on training.<sup>1</sup>

Low-fidelity manikins and portable task trainers (PTTs) with corresponding case studies are used in the class, the lab, and home environments to practice and retain skills. Depending on the course, students may practice skills on their PTT prior to lab as they are reviewing pre-learning material on how to complete a foundational skill, which then allows for synchronous class or lab time to include unfolding application-based client scenarios wherein students perform the learned skill as an appropriate patient intervention. Faculty have also created similar unfolding case studies for students to access at home, so they can continue to develop both psychomotor and clinical judgment skills.<sup>2</sup>

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## Endorsed by INACSL

*The School of Nursing is recognized by the International Nursing Association for Clinical Simulation and Learning for its commitment to quality and its implementation of rigorous, evidence-based practices in healthcare education to improve patient care.*

1. K. Burke, A. Humm, and N. Adair. 2022. *Using Portable Task Trainers to Strengthen Undergraduate Nursing Students' Clinical Judgment & Psychomotor Skills*. Conference Podium Presentation. Chicago: AACN Transform 2022.

2. D. Rutigliano, J. Zugnoni, and K. Burke. 2022. *Increasing Fidelity and Clinical Judgment across an Undergraduate Nursing Program by Implementing an Academic Electronic Medical Record*. Conference Poster Presentation. Chicago: AACN Transform 2022.

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Additional hands-on training is also carried out with high-fidelity manikins that have varying skin tones and genders, and each has a pulse and a port for fluids. The manikins' lungs and intestines make sounds, and the manikins can blink, bleed, breathe, and urinate. They can be injected, intubated, and defibrillated. And there are baby manikins, juvenile manikins, manikins that can have seizures, and pregnant manikins that give birth.

Although the manikins may lack the realism of live patients, "their actions are very realistic," said Kimberly Buholtz, EdD, RN, PED-BC, CHSE, Assistant Director of Simulation, adding "They may not feel real, but we ask students to treat them as real patients."

Students can speak to the manikins, who respond, and they can give the manikins medications. Students can order and review labs via Lippincott® DocuCare — an academic EMR training solution — and they can call the pharmacy, the charge nurse, or the patient's primary physician and receive an immediate response. Students are encouraged to be curious and explore a range of treatment possibilities. "It is a safe place to learn," Buholtz said, adding "They'll be corrected but not punished for mistakes, which are puzzles to solve. It's not a gotcha. It's designed to be a learning experience in a safe way."

Most learning takes place in a debriefing room, where students assess the simulation experience and review the comments made by faculty members directly onto a video of the simulation experience.

Laura-Ann Fierro, RN, who graduated in spring 2023 from the accelerated bachelor's degree program, found the simulations



particularly helpful. "Nursing is not a cookie-cutter profession," she said. "There are many ways to do things. A faculty member might ask why we decided to use a nasal cannula instead of a nonrebreather. And then we talk about it."

The simulation experiences are recorded, and students can later access them on their tablets and reflect on their patient care experience. In addition, students have access to vSim® for Nursing, developed by Wolters Kluwer, Laerdal Medical, and the National League for Nursing (NLN). The solution provides a realistic, true-to-life clinical experience.

Also available via a student's iPad, vSim for Nursing enables students to engage with 3D patients, thereby testing their ability to recognize and analyze cues through unfolding visual and audio responses and by experiencing lifelike reactions. Students decide what actions to take in vSim for Nursing, with the system adapting to student-driven decisions so that students can see an immediate cause and effect, helping to strengthen their clinical judgment skills.



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*"With simulations, if I've made a mistake, I can go back and fix what I've done, redoing it again and again and again. I can practice my skills with my hands and feel comfortable before I walk in to see a real patient and do it in real life."*

**Carlyn Niver, RN, a graduate student studying in the Master's in Nursing Education Program at the School of Nursing**

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The newest simulation experience is virtual reality, with students donning virtual-reality headsets for a gaming-style experience. vrClinical<sup>®</sup> for Nursing — also developed by Wolters Kluwer, Laerdal Medical and the NLN, enables students to virtually care for multiple patients in what feels like a hectic hospital unit. The technology helps students experience pressures in the moment, learn to prioritize, and make decisions about the delivery of patient care. The technology helps students master clinical judgment skills, build confidence, and make decisions under pressure — all of it in a low-risk environment.

Carlyn Niver, RN, a graduate student studying in the Master's in Nursing Education Program at the School of Nursing, is particularly drawn to virtual reality because you can interact with patients, evoke responses, and provide care without being nervous about making a mistake. "With simulations, if I've made a mistake, I can go back and fix what I've done, redoing it again and again and again. I can practice my skills with my hands and feel comfortable before I walk in to see a real patient and do it in real life."

The flipped-classroom concept has proved to be fundamental to the teaching shift, with students doing prework to maximize face-to-face classroom time versus sitting in a lecture. The concept gives students the ability to use the information they've learned and apply their critical-thinking skills through experiential-learning activities in the classroom. Content and clinical situations are discussed with diverse learners, who bring unique perspectives to the discussion from many different angles, broadening their overall view of client care.

The Lippincott learning solutions enable students to easily do their pre-work prior to a flipped-classroom session. One of the included resources is PrepU, an adaptive quizzing solution built into Lippincott<sup>®</sup> CoursePoint whose educational materials and digital texts are in formats that are accessible via the students' iPads. The school has also started using those capabilities in the final capstone course for purposes of preparation for the National Council Licensure Examination (NCLEX<sup>®</sup>).

The School of Nursing also leverages the offerings from NurseTim<sup>®</sup> — now a part of the Lippincott suite and integral to the Lippincott<sup>®</sup> Partnership for Nursing Education solution. "Here at the School of Nursing we share the same philosophy about learning as NurseTim," observes Burke. That philosophy? You must bring the clinical experience into the classroom. "Some of the products we use are the CJSim<sup>™</sup> Next Gen Quizzing, which are essentially unfolding case studies that guide students through a clinical scenario. They have to apply critical thinking just as they would at the bedside.

"Another product that we use are their benchmark Clinical Judgment Exams, and those are embedded throughout our curriculum to evaluate student learning on very important nursing concepts," said Burke. "It's nice that we can address any deficits that they might have."



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*The School of Nursing uses the Lippincott<sup>®</sup> suite of Nursing Education solutions, NurseTim<sup>®</sup> and NurseThink<sup>®</sup> across its curriculum, courses, and programs.*

# Facilitating outcomes

Since 2018, when the School of Nursing launched its iROC program, performance has consistently improved.

Through time, the program has evolved from simply digitizing learning materials for easy access on tablets to providing a sophisticated array of high-tech training options, all of them aimed at helping nursing students get the training they need to be more practice-ready upon graduation.

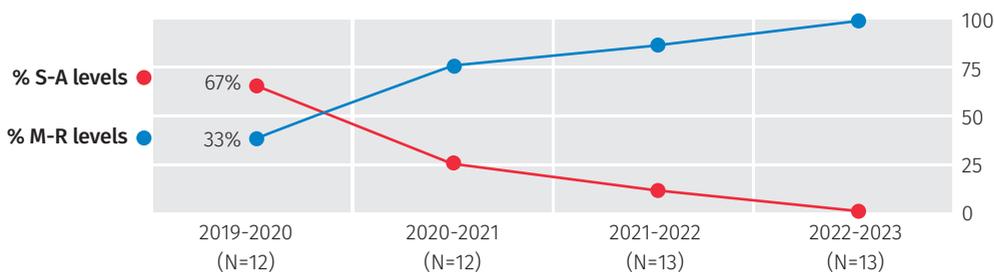
From low- and high-fidelity manikins, PTTs, and academic EMRs (AEMRs), to computer-simulated cases and virtual reality that mimics a real-world hospital environment, program results across the board demonstrate that an experiential, immersive approach can successfully educate new nurses faster — and better — than traditional, auditorium-style lectures and limited live clinicals. Here are some of the results the School of Nursing has achieved in the five years since it began its journey to reinvent its program.

## Technology innovation

To measure the effectiveness of technology integration and the stage of digital transformation, the School of Nursing uses the SAMR, or substitution, augmentation, modification, and redefinition, model. The model is based on the ways technology is used for either replacing a previous learning activity or enhancing it, as well as for completely redesigning tasks and using technology to connect the classroom to the real world.

Since implementing the model, the School of Nursing has increased the percentage of courses at the modification–redefinition (M-R) level by 100% and reduced the earlier, substitution–augmentation (S-A) phases to zero, signaling significant progress in programmatically advancing the School of Nursing’s digital transformation.

## Embedded EdIT support and digital transformation



*“I enjoyed working in groups as it promoted teamwork and clinical judgment skills in a safe and controlled environment. The faculty helped prepare me for employment after nursing school and I’ve maintained many of my faculty relationships as I work alongside many of them in the hospital.”*

**Dean Viggiano, RN, graduate of the one-year accelerated program**

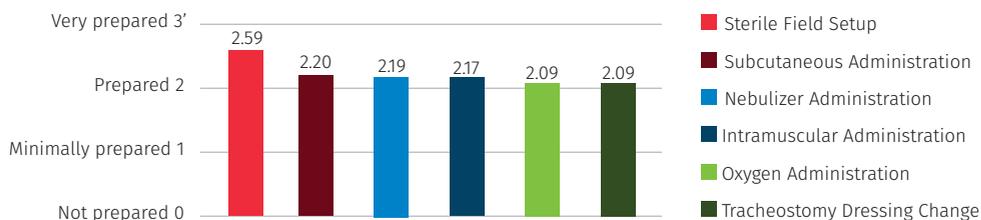


The progress hasn't gone unnoticed. For its outstanding work, the University of Rochester School of Nursing has been recognized by the American Association of Colleges of Nursing (AACN) with a 2023 Innovations in Professional Nursing Education award in the category of Private Colleges/Universities. The award recognizes schools that demonstrate innovation within their curriculum and the advancement of professional nursing education.



### Student self-reported preparedness

Using hands-on methods to practice, both in group-learning lab sessions and at home with PTTs, students self-reported that they felt prepared in six out of nine critical skills<sup>1</sup>

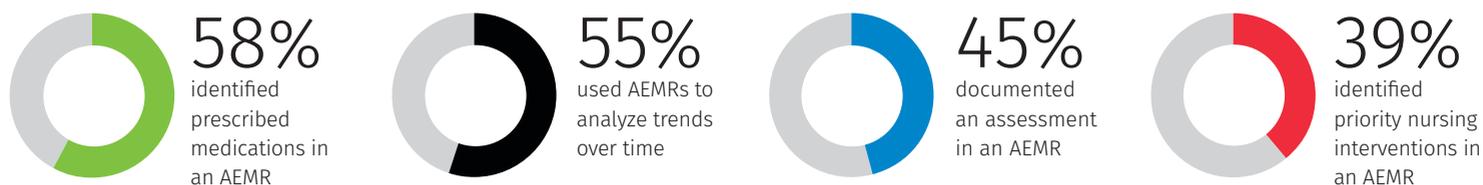


*The University of Rochester School of Nursing has been recognized by the American Association of Colleges of Nursing (AACN) with a 2023 Innovations in Professional Nursing Education award.*

### Increasing fidelity and clinical judgment with an academic EMR

To assess students' own perceptions of clinical judgment — measured over time from 2020 to 2022 — students reported that gaining academic EMR experience by using Lippincott DocuCare had provided invaluable hands-on experience in charting. Students self-reported that the solution had helped them become mostly prepared or very prepared when it came time to locate patient information, document interventions, and more.<sup>1</sup>

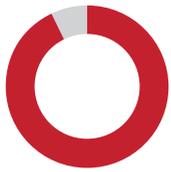
### Student perceptions of preparedness<sup>2</sup>



Note: Responses Mostly and Very Prepared

1. K. Burke, A. Humm, and N. Adair. 2022. *Using Portable Task Trainers to Strengthen Undergraduate Nursing Students' Clinical Judgment & Psychomotor Skills*. Conference Podium Presentation. Chicago: AACN Transform 2022.  
 2. D. Rutigliano, J. Zugnoni, and K. Burke. 2022. *Increasing Fidelity and Clinical Judgment across an Undergraduate Nursing Program by Implementing an Academic Electronic Medical Record*. Conference Poster Presentation. Chicago: AACN Transform 2022.

## Student responses regarding the overall learning experience<sup>3</sup>



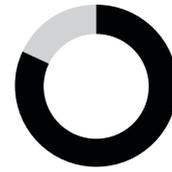
**93%**  
Experience improved my critical thinking



**91%**  
Debriefing enhanced my understanding of module concepts



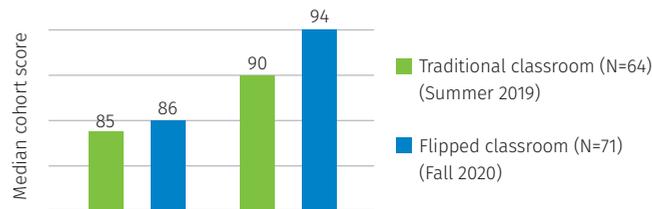
**83%**  
Pre-VSAs prepared me for simulation



**82%**  
Pre-VSAs reinforced my learning from in-person simulation

Note: Responses Strongly and Somewhat Agree.

## Comprehensive health assessment exam scores<sup>4</sup>



## Student comprehension and experience

Equally important has been the integration of virtual simulation activities (vSims) — especially prior to in-person simulation. Faculty have observed that today’s students are more focused on conducting a thorough patient assessment, as well as on identifying and prioritizing patient interventions and performing them correctly compared with students from previous cohorts who did not complete vSims.<sup>3</sup>

In reflecting on their own learning experiences, students most strongly agreed that debriefing enhanced their understanding (79.5%); the experience improved critical thinking (75%); and the pre-vSims prepared them for simulation (70.8%).<sup>3</sup>

## Student scores

Integrating technology into the flipped classroom has helped improve exam scores through time. Preliminary outcomes that compare the traditional class from 2019 to the flipped class in 2020 show increases in students’ cumulative grade scores from 85 to 86% and final grade scores from 90 to 94%.<sup>4</sup>

Aligning the use of PTTs with case studies has led to further improvements, helping move students through a series of six questions aimed at incorporating at least one psychomotor skill, as outlined by the National Council of State Boards of Nursing Clinical Judgment Measurement Model. The alignment supports changes to the Next Generation NCLEX for measuring clinical judgment, with most exam scores, cumulative scores, and final grades improving overall.

*“The School of Nursing faculty prepared me for the job I ultimately got. Many of my faculty relationships continue to this day as I work side by side on the hospital unit with faculty as peers.”*

**Dean Viggiano, RN**



- J. Zugnoni and K. Burke. 2022. *Not Just a Creative Alternative to Clinical: Virtual Simulation Promotes Higher-Order Thinking and Clinical Judgment Among Accelerated Nursing Students*. Conference Poster Presentation. Orlando, Fla.: NurseThink Next Gen Learning Conference.
- K. Burke, S. Ciurzynski, and T. Serwetnyk. 2021. *Flipped Classroom Model: Preliminary Outcomes*. Presentation. Rochester, N.Y.: University of Rochester School of Nursing.
- University of Rochester School of Nursing. “Outcomes Data” (website). <https://son.rochester.edu/academics/outcomes.html>, last accessed September 22, 2023.
- L. Rotondo, T. Serwetnyk. January 2023. *Leveraging Technology to Design 21st Century Nursing Education* [Keynote Presentation]. Apple Nursing Education Summit, Cupertino, CA, United States.

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## Pass rates

The ultimate measure of success is how well the School of Nursing's immersive approach has helped prepare nursing graduates both to pass the NCLEX and to find employment. The School of Nursing's graduates have excelled on both counts, resulting in:

Pass rate	Activity	National average per year
92%	Overall, for students taking the Next Generation NCLEX	2022
90%	Five-year pass rate for first-time test takers	75% in New York State; 85% nationally

## Student graduation

The School of Nursing has a 96% graduation rate on average from its Accelerated Nursing Programs.

Accelerated program for non-nurse graduation rates <sup>5</sup>						
Year	2016	2017	2018	2019	2020	Five-year average
Two-year graduation rate	96%	96%	95%	98%	93%	96%

## Student employment

The School of Nursing had a 96% employment rate in their field of study in 2022 among its 370 graduates across all bachelor's, master's, and doctoral programs.<sup>5</sup>

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## What is on the horizon for the School of Nursing?

Dean Kitko predicts more creative use of technology to reinforce learning, with faculty, instructional designers, and IT professionals continuing to collaborate to build on what they have accomplished, and to expose students to as many experiences as possible in a safe learning environment.

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*"We've created an environment in which it is psychologically safe to ask questions, learn, and go through the decision-making process. This helps develop competence. The more use of simulated hands-on training, including virtual reality, the better to support the pedagogy and the overall learning experience."*

**Lisa Kitko, PhD, RN, FAHA, FAAN**

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Please visit  
<https://www.wolterskluwer.com/en>  
for more information.