



Rebuilding Nursing Infrastructure Leading with ATI Complete Solutions

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Agenda

- Overview: How ATI Supports Grant Purpose/Priorities
- ATI Solution Alignment to Specific Grant Priorities
 - Faculty Solutions
 - Academic Readiness
 - Testing and Remediation
 - Curriculum Supplements
 - Clinical Simulations and Prep
 - NCLEX Prep Immersion
- Wrap Up

Nursing Demonstration Project: Rebuilding Nursing Infrastructure Grant



California Community Colleges

Request for Applications (RFA)

California Community Colleges Chancellor's Office Rebuilding Nursing Infrastructure Grant

WORKFORCE AND ECONOMIC DEVELOPMENT DIVISION
Equitable Student Learning, Experience, and Impact Office

Funding Years	Fiscal Year 2024-25
Release Date	November 15, 2024
Application Deadline	Applications must be received January 31, 2025, at 11:59 p.m. in NOVA
Funding Source	Rebuilding Nursing Infrastructure Grant Program (Strong Workforce Program) A competitive grant of up to \$2,000,000 per California community college
Total Available funds	\$57,000,000
Expected Grant Term	July 1, 2025 – June 30, 2027
Bidders' Conference	December 4, 2024, at 1:30p.m. PDT Register here!
Questions Deadline	Written questions concerning the specifications of this Request for Applications must be submitted via email to NursingApps@CCCCO.edu by 5 p.m. on December 20, 2024.
Anticipated Notification of Intent to Award	March 2025

<https://www.cccco.edu/-/media/CCCCO-Website/docs/rfa/rebuilding-nursing-infrastructure-grant-rfa-a11y.pdf>

Legislative Priorities/Purpose of the Grant

Grant Priorities Directly Supported by ATI Solutions

- | | |
|---|--|
| 2 | Develop or expand associate degree in nursing (ADN) programs. |
| 3 | Develop strategies for recruiting, retaining, and training high-quality nursing faculty, including, but not limited to, offering incentives, including stipends and flexible working hours, to recruit and retain nursing faculty, and by providing professional development opportunities |
| 4 | Develop strategies for increasing nursing program credentials, including, but not limited to, efforts to address noncompliance issues raised by the Board of Registered Nursing and to obtain accreditation from the Accreditation Commission for Education in Nursing. |
| 5 | Develop strategies for engaging and retaining nursing students, including, but not limited to, the integration of high-impact and diversity-, equity-, and inclusion-focused curriculum, the development of apprenticeship opportunities, and the expansion of student support services including basic needs assistance, mental health support, case management, counseling services, and specialized tutoring. |
| 6 | Develop strategies that facilitate the increase in the percentage of associate degree nursing to Bachelor of Science in nursing students, including, but not limited to, the development of strategies that strengthen the high school to community college nursing pipeline. |
| 8 | Developing or scaling efforts that lead to additional clinical placements for nursing students |

Why ATI?

ATI by the Numbers



Nursing is All We Do!
ATI's **600+** MSN/Doctoral Prepared Nurses Drive our
Education Solutions



Over 1,000,000

Student enrollments in ATI
NCLEX prep solutions



98.9%

Client retention
rate



1200+

Complete clients



65%

U.S. Nursing Programs are ATI Partners

ATI Complete Partnership

A Deep Commitment Between Our Organization and Yours



Solutions

Access to nearly every solution in the ATI inventory



Service

Together, we set concrete goals and tailor a specific plan to achieve them



Data and Analytics

Use of data to measure progress and build accountability



Outcomes

Driving superior outcomes for your students, faculty, and program

Goal-oriented Action Plan

Price Lock

Complete Account Executive

Complete Insights Review

Complimentary Consulting

Program and Faculty Support On-Demand

Faculty Development + Contact Hours

Complete Partnership

Log In

Support

Assessments

Remediation

Proctoring

Virtual
Simulations



Analytics
& Data

ONE PLATFORM. ONE LOGIN.

Course
Resources

Clinical
Management

Next Gen Prep

Faculty
Development

Program
Management

ATI Resources + Solutions

Key Areas to Include in Grant Application Work Plan (40 points)



Admissions
+ Early Program
Support



Curriculum
Resources



Simulation +
Transition to
Practice



Assessments
&
Analytics



NCLEX
Success
Resources



Service
&
Support

Grant Priorities Aligned To ATI Solutions

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2. Develop or expand Associate Degree in Nursing (ADN) programs.

Statement of Need

The [Bureau of Labor Statistics](#) projects employment of registered nurses will rise 6% from 2022 to 2032, faster than the average for all occupations. This increased demand is expected to drive opportunities for career advancement and higher pay.

ATI Complete Solutions:

Expert Nursing Education Consultant to guide director and faculty through each step of the curriculum development/revision process and other strategies to increase enrollment and improve outcomes.

 Expand Curriculum Development	Consulting Offering
	Overview of Competency-Based Education and Competencies for The Essentials***
	Development of a Concept-Based Curriculum that Meets the Needs of the 21st Century Nurse***
	Development of a Traditional Curriculum that Meets the Needs of the 21st Century Nurse***

3. *Develop strategies for **recruiting, retaining, and training high-quality nursing faculty**, including, but not limited to, offering incentives, including stipends and flexible working hours, to recruit and retain nursing faculty, and by **providing professional development opportunities**.*

Statement of Need

- According to a Special Survey on Vacant Faculty Positions released by AACN in October 2023, a total of 1,977 full-time faculty vacancies were identified in a survey of 922 nursing schools with baccalaureate and/or graduate programs across the country (84.6% response rate). Besides the vacancies, schools cited the need to create an additional 103 faculty positions to accommodate student demand. The data show a national nurse faculty vacancy rate of 7.8%. Most of the vacancies (79.8%) were faculty positions requiring or preferring a doctoral degree.
- Nursing schools are facing faculty shortages that have left nearly eight percent of faculty positions vacant in 2023.
- Approximately 60% of nursing schools reported vacancies of full-time positions. The vacancy rate was particularly pronounced in the West, with 11% of full-time nursing faculty positions vacant this year.
- A recent report from the Center for American Progress suggests nurse faculty shortages are an important factor driving pipeline challenges.
- The American Association for Men in Nursing, reports nationwide, 93% of faculty are female, while Black and Hispanic educators represent only 9% and Hispanic educators representing only 3.4% of the nurse faculty population, respectively.
- Faculty who feel valued report greater work satisfaction and are more likely to remain in their role.
- Educators who have access to the resources needed to accomplish their work and whose positions provide them with flexibility, visibility, and a sense of relevance to their department will likely be satisfied in their academic careers
- Ongoing support and training for Novice faculty (didactic, lab, clinical) and leadership development and support for new deans/directors/chairs of key committees is essential.

ATI Complete Solution Faculty Development Focus

Professional Development Resources/Roadmap to Support All Faculty Needs

- ATI Academy
- Dr. Patricia Benner's Educating Nurses
- Weekly Webinars (live and recorded)
- Consulting Services
- ATI's 600+ MSN /Doctoral Prepared Nurses

Supporting Product Alignment, Integration, and Data-Driven Decision Making

ATI TALK: Nov. 15 | 12 p.m. CT

Preparing Students for Courageous Conversations and Civility Advocacy

Learn from leading expert Dr. Cynthia Clark, PhD, RN, ANEF, FAAN

[Register here](#)



ATI Academy

Online faculty-forward modules providing contact hours and certificates

Examples to Include in Work Plan

- New Faculty Onboarding Plan
- Certificate Courses:
 - Active Learning Strategies to Promote Student Success
 - Clinical Judgment
 - Mastering the Art of Classroom Management
 - Testing Essentials
- Assessment and Accreditation: Driving Academic Quality
- Making a Smooth Transition from Clinician to Clinical Nurse Educator
- Incorporating AI Into Nursing Education

4. *Develop strategies for increasing nursing program credentials, including, but not limited to, efforts to address noncompliance issues raised by the Board of Registered Nursing **and to obtain accreditation from the Accreditation Commission for Education in Nursing.***

Statement of Need

Pre-licensure registered nursing programs in California must be approved by the BRN. The purpose of approval is to ensure the program's compliance with statutory and regulatory requirements.

[ACEN](#) accreditation is voluntary and signifies quality in nursing education by fostering program excellence through the peer review process, which benefits students, faculty, and the community.

Lessons

Blood Pressure

Pulse

Body Temperature

Respiration and Oxygen Saturation

Skills

Assessing Body Temperature

Assessing Peripheral Pulses

TOOLS



Glossary



ati® Program Manager

temporal

carotid

popliteal



Program Manager

Streamlines and Manages Data Essential to Accreditation



Curriculum Management

Align curricula, courses, outcomes, and competencies to streamline the process of documenting student exposure to curricula requirements



Evaluations

Create online evaluation tools, schedule delivery to all program stakeholders, report on performance towards practice preparedness



Systematic Evaluation Plan

Track program outcomes, compile data from multiple sources, measure performance and trends, create program action plans



Accreditation Reporting

Load your accrediting body's standards, manage completion, automatically compile data and generate accreditation reports



Clinical Management

Manage your clinical education program through site administration, compliance management while maintaining your programs' calendars.

5. Develop strategies for **engaging and retaining nursing students**, including, but not limited to, the integration of high-impact and **diversity-, equity-, and inclusion-focused curriculum**, the development of apprenticeship opportunities, and the expansion of student support services including basic needs assistance, mental health support, case management, counseling services, and **specialized tutoring**.

Statement of Need

No matter one's background, all nursing students will benefit from diversity in the classroom and throughout their careers because it fosters a better understanding of disparities, leads to more instructive conversations, creates more empathetic and culturally competent nurses.

- A September 2024 EAB and Seramount report found, among college-readiness metrics, students are struggling to meet expectations in and outside the classroom, which could have effects on their lives beyond education.
- Personnel at colleges and universities reported to EAB that they have noticed more students seeking mental health counseling and crisis services, struggling with resiliency, having difficulty with interpersonal communication and conflict resolution, and being less involved in student organizations or other social opportunities.
- Social media has also played a role in hindering Gen Z's emotional development.
- A lack of resilience and coping skills is also tied to the so-called student mental health crisis. Individuals with self-regulation skills are more likely to avoid mental health crises before they develop, and students who do have a diagnosed mental illness can better support themselves if they are socio-emotionally developed.
- College readiness has downstream effects on students' abilities to perform well in graduate education and in the workplace. Data collection found recent graduates struggle with professional writing and lack industry-specific technical skills, limiting their capabilities to grow and succeed.
- Studies found virtual tutoring to improve workforce readiness- a 12-week online tutoring program in which an experienced ATI U.S. nurse educator works directly with an international educated nurse (IEN) to review substantive content was introduced to students

Lessons

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Glossary



Academic Readiness

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Introducing Launch: Nursing Academic Readiness

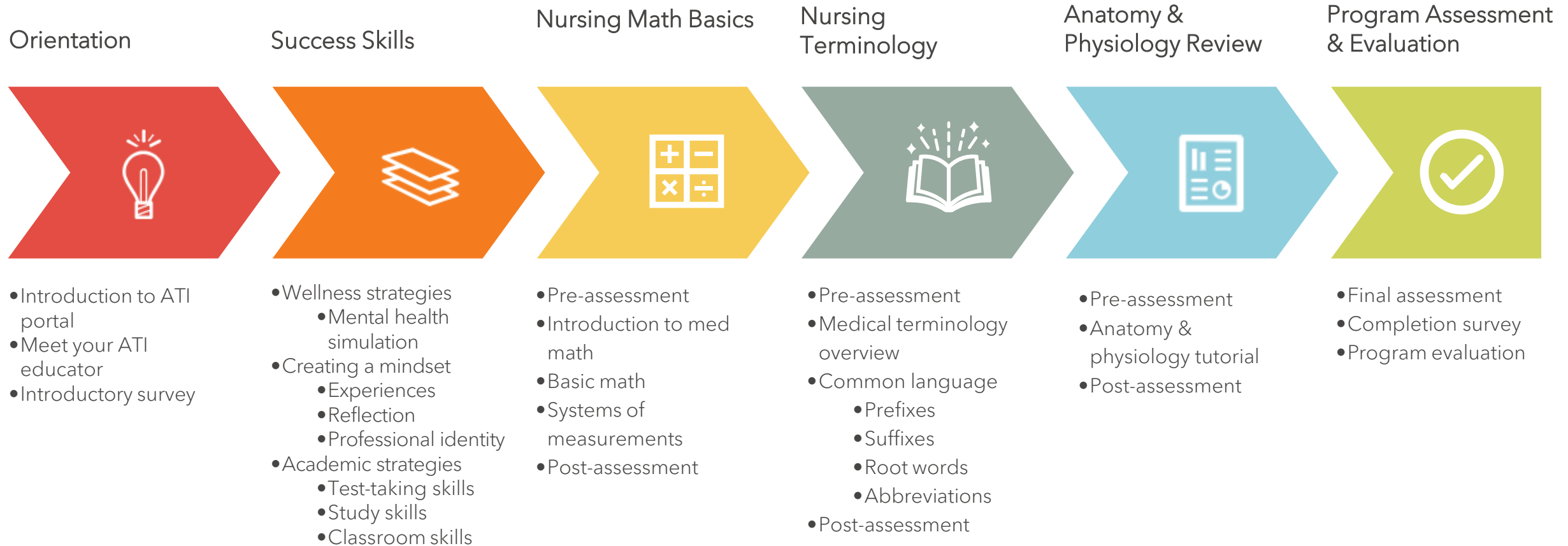
- Another ATI innovation for student success
- Bridging the gap between admissions and nursing curriculum

LAUNCH



**NURSING ACADEMIC
READINESS™**

Launch: Nursing Academic Readiness Overview



ATI educator will facilitate student's progression through modules for 6 weeks.

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Glossary



Testing and Remediation

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Assessments and Remediation

Administration and security

Administration

- No IP address required
- Can be done wired or wireless
- Can be on school or personal laptop
- No need to schedule assessment with ATI
- Technical support available on nights and weekends

Security

- Continuous addition of new items
- Double randomization on assessments
- Security scans run in background
- Lockdown browser built into website
- Additional security features incorporated



RN Content Mastery Series Assessment (CMS)

CONTENT AREA	Scored	Items Pretest*	Total
Adult Medical Surgical	90	10	100
Fundamentals	60	10	70
Pharmacology	60	10	70
Maternal Newborn	60	10	70
Nursing Care of Children	60	10	70
Mental Health	60	10	70
Leadership	60	10	70
Community Health	50	10	60
Nutrition	60	10	70
<i>*Pretest items do not contribute to student scores</i>			

- Standardized, nationally benchmarked assessments
- Includes all NGN Item types
- Consists of 15% - 20% NGN items
- NGN items will be scored to mimic NCSCBN (0/1, +/-, rationale)
- Comprehensive Predictor assessment for end of program student performance

ATI Assessment Outcomes Reports

- Outcomes Reports to track all the key data for your program
- Ex. 1
AACN Essentials

AACN Essentials	No of Points	Group Score	Description
Knowledge for Nursing Practice	33	70.3%	Integration, translation, and application of established and evolving disciplinary nursing knowledge and ways of knowing, as well as knowledge from other disciplines, including a foundation in liberal arts and natural and social sciences. This distinguishes the practice of professional nursing and forms the basis for clinical judgment and innovation in nursing practice.
Person-Centered Care	28	80.1%	Person-centered care focuses on the individual within multiple complicated contexts, including family and/or important others. Person-centered care is holistic, individualized, just, respectful, compassionate, coordinated, evidence-based, and developmentally appropriate. Person-centered care builds on a scientific body of knowledge that guides nursing practice regardless of specialty or functional area.
Population Health	11	79.5%	Population health spans the healthcare delivery continuum from public health prevention to disease management of populations and describes collaborative activities with both traditional and non-traditional partnerships from affected communities, public health, industry, academia, health care, local government entities, and others for the improvement of equitable population health outcomes.
Scholarship for the Nursing Discipline	130	75.2%	The generation, synthesis, translation, application, and dissemination of nursing knowledge to improve health and transform health care.
Quality and Safety	28	74.2%	Employment of established and emerging principles of safety and improvement science. Quality and safety, as core values of nursing practice, enhance quality and minimize risk of harm to patients and providers through both system effectiveness and individual performance.
Interprofessional Partnerships	6	86.1%	Intentional collaboration across professions and with care team members, patients, families, communities, and other stakeholders to optimize care, enhance the healthcare experience, and strengthen outcomes.


ATI Assessment Outcomes Report

- Ex: 2
Clinical Judgment
Measurement Model

Clinical Judgment	No of Points	Group Score	Description
Recognize Cues	14	80.1%	Filter information from different sources (i.e., signs, symptoms, health history, environment). Identify relevant information related to the client's condition. Use knowledge, experience and evidence to assess clients. Use verbal, nonverbal, written, and electronic modes of communication. Recognize relevant subjective/objective client data. Identify subtle and apparent changes in client condition and related factors.
Analyze Cues	48	68.8%	Link recognized cues to a client's clinical presentation and establishing probable client needs, concerns, or problems. Compare client findings to evidence-based resources and standards of care. Analyze expected and unexpected findings in health data. Anticipate illness/injury and wellness progression. Identify client problems and related health alterations. Analyze client needs. Identify potential complications. Identify how pathophysiology relates to clinical presentation. Identify data that is of immediate concern.
Prioritize Hypotheses	4	66.7%	Establish priorities of care based on the client's health problems (i.e. environmental factors, risk assessment, urgency, signs/ symptoms, diagnostic test, lab values, etc.). Organize client assessment information according to changes, patterns and trends. Use standards of care and empirical frameworks for priority setting. Establish and prioritize client problems/needs based on the analysis of information and factors.
Generate Solutions	15	74.9%	Identify expected outcomes and related nursing interventions to ensure clients' needs are met. Collaborate with members of the interprofessional healthcare team to establish client outcomes and the plan of care. Collaborate with client and care partners to establish client outcomes and the plan of care. Identify optimal client outcomes based on information and factors. Identify evidence-based nursing actions to effectively address the clinical situation of the client's health problem. Prioritize plan of care to achieve optimal client outcomes.

Individualized Student Focused Review

Track Performance, Engagement & Learning Opportunities

 **Practice Assessment:** RN Fundamentals Online Practice 2019 A with NGN CLOSE

Individual Performance Profile

Download Report

Score Explanation

INDIVIDUAL SCORE

73.1%

TIME SPENT

54:53

Individual Name: Cara L Rigby

Student Number: 4954862

Institution: Product Demo - RN

Program Type: ADN

Test Completed Date: 1/18/2022

of Points: 78 Attempt: 1

Focused Review Progress

View missed topics and launch study materials below.

Last accessed: 7/18/2024 Time spent: 02:06:40

Post-Study Quiz: Not taken

Start Quiz

Individual Performance in the Major Content Areas

Show all topics to review OFF

Content Area	Topics to Review	Total # Points	Individual Score	
+ <u>Management of Care</u>	3	15	<div><div></div></div> 80.0%	<div>Focused Review</div> <div>Last Accessed: 11/4/2023</div>
+ <u>Safety and Infection Control</u>	6	15	<div><div></div></div> 60.0%	<div>Focused Review</div> <div>Last Accessed: 10/24/2023</div>
+ <u>Health Promotion and Maintenance</u>	2	8	<div><div></div></div> 75.0%	<div>Focused Review</div> <div>Not accessed</div>
+ <u>Psychosocial Integrity</u>	1	4	<div><div></div></div> 75.0%	<div>Focused Review</div> <div>Not accessed</div>
+ <u>Basic Care and Comfort</u>	3	14	<div><div></div></div> 71.4%	<div>Focused Review</div> <div>Not accessed</div>

ATI Pulse

Predicting NCLEX success through data



STRUGGLING WITH
PHARMACOLOGY



DOES NOT COMPLETE
PRACTICE ASSESSMENTS



ON TRACK TO
PASS NCLEX

Pulse Insights for Students



Pulse Score

Understanding Pulse

39%

Probability of Passing NCLEX

At Risk

90-100% - On Track

Proctored Assessments - Taken

Completed an exam? Start your Focused Review to learn about topics you missed.

Filter By: First Attempts Only Most Recent Attempts Only

Date Taken	Assessment Name	Attempt Number	Score	Level	Focused Review Time Spent	PoP%
01/18/23	RN Fundamentals 2019	1	46.7%	<1	07:21	39%

1 - 1 of 1

Proctored Assessments - Not Taken

Level 2 Prediction

Assessment Name	Likelihood to reach Level 2 proficiency
Adult Medical Surgical	Not likely
Community Health	Not likely
Leadership and Management	Not likely
Maternal Newborn	Not likely

Recommended Tutorials

For you based on last week's activity.

Exam prep? Choose a content area to target your study time.

Filter By: Adult Medical Surgical Community Health Fundamentals Leadership Maternal Newborn Mental Health Nutrition Pediatric Nursing Pharmacology

CLEAR FILTERS

- PHARMACOLOGY MADE EASY**
Introduction to Pharmacology
☒ Completed
- NURSELOGIC**
Nursing Concepts
☐ Mark as complete
- NURSELOGIC**
Testing and Remediation
☐ Mark as complete
- PHARMACOLOGY MADE EASY**
The Cardiovascular System
☐ Mark as complete

Custom Assessment Builder

Testing made easy.



Custom Assessment Builder

The most robust and analytical test-authoring tool in nursing education.



Made Easier with Claire AI

Claire is the first AI-powered aide purpose-built for nurse educators. With its help, nurse educators will be able to save large amounts of time and effort so they can spend more time teaching.

- **Extensive question bank** – with 6,000+ items to choose from, including rationales and NGN items.
- **Write your own questions** – ability to tag by outcomes &/or concepts with unlimited added items.
- **Enhanced scoring options** – same scoring methods established by the NCSBN.
- **Build your own** – case studies.
- **Adjust score to full credit** – options are generated directly in an assessment.
- **Concept-Based Curriculums** – tag new questions, filter and run score reports by concepts.

Assessment Builder Item Types



Create your own enhanced NCLEX items including NGN

- Bow tie
- Trend
- Multiple response: Select N
- Matrix multiple choice
- Matrix multiple response
- Multiple response: Select all that apply
- Multiple response: Grouping
- Case study creation with trend
- Drop-down cloze
- Drop-down rationale
- Highlight text
- Drag-and-drop cloze
- Drag-and-drop rationale
- Highlight table
- Drop-down table
- Case study creation



Create your own standard items

- Multiple Choice
- Multiple Response Select All That Apply
- Fill in the Blank Alpha
- Fill in the Blank Numeric

Learning System

Student Quiz Bank

- Nursing students need and desire more practice with NCLEX-style questions
- 3000+ unique test items covering all major content areas

Three quizzing modes for different instructional environments:

- ✓ Timed Mode - no rationales
- ✓ Review Mode - rationales enabled
- ✓ Adaptive Mode - adjusts to students' performance

Question: 2 of 20

Time Elapsed: 00:01:31

TOOLS +

HIDE HINT

- Words highlighted in yellow and italicized are things on which you should focus.
- Words that are underlined have glossary definitions when clicked.

FLAG

A nurse is admitting an older client who has chronic obstructive pulmonary disease. The client's daughter is present and tells the nurse that her father will become *uncooperative* if he is not able to follow his usual routines. Which of the following *actions* should the nurse take?



- ☐ Assure the client that his usual routines will be followed.
- ☐ Ask the daughter what routines her father follows at home.
- ☐ Inform the daughter that the facility has policies that must be followed.
- ☐ Tell the daughter to inform the provider about how she wants her father's care organized.

Lessons

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Glossary



Curriculum Supplements

temporal

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Evidence-Based Tutorials

Preparing students to think like a nurse

- Achieve- Prepare for Nursing School
- Nurse Logic- Critically think like a nurse
- Pharmacology Made Easy
- Dosage Calculations and Safe Medication Administration

ati Pharmacology Made Easy 5.0

The Cardiovascular System

← ALL MODULES

Topics

TOPICS VIDEOS

Overview

Medication Therapy for Hypertension

Medication Therapy for Heart Failure

Medication Therapy for Coronary Heart Disease

Medication Therapy for Cardiac Dysrhythmias

Summary

Overview

The Heart

Audio Tools

Video Transcript

1 2 3 4 5 ... 53

Dimensional Analysis Desired Over Have Ratio And Proportion

Converting to equivalent dosages

Walkthrough

Administer phenytoin 0.2 g PO. Available is 100 mg capsules. How many capsules should you administer?

Phenytoin 0.2g

100 mg capsules

Challenges for the ESL Student: Steps for Successful Preparation

Six-step program

- Reading strategies
- Listening strategies
- Vocabulary building tips
- Test-taking strategies
- Study skills strategies
- Developing support systems



ati Engage™ Series

A fully interactive learning experience designed for today's students



FUNDAMENTALS



COMMUNITY &
PUBLIC HEALTH



MENTAL HEALTH



ADULT MEDICAL
SURGICAL



MATERNAL
NEWBORN AND
WOMEN'S HEALTH



PEDIATRICS



PHARMACOLOGY



NURSING CONCEPTS



Available for Fall 2025 Integration

Engage Series

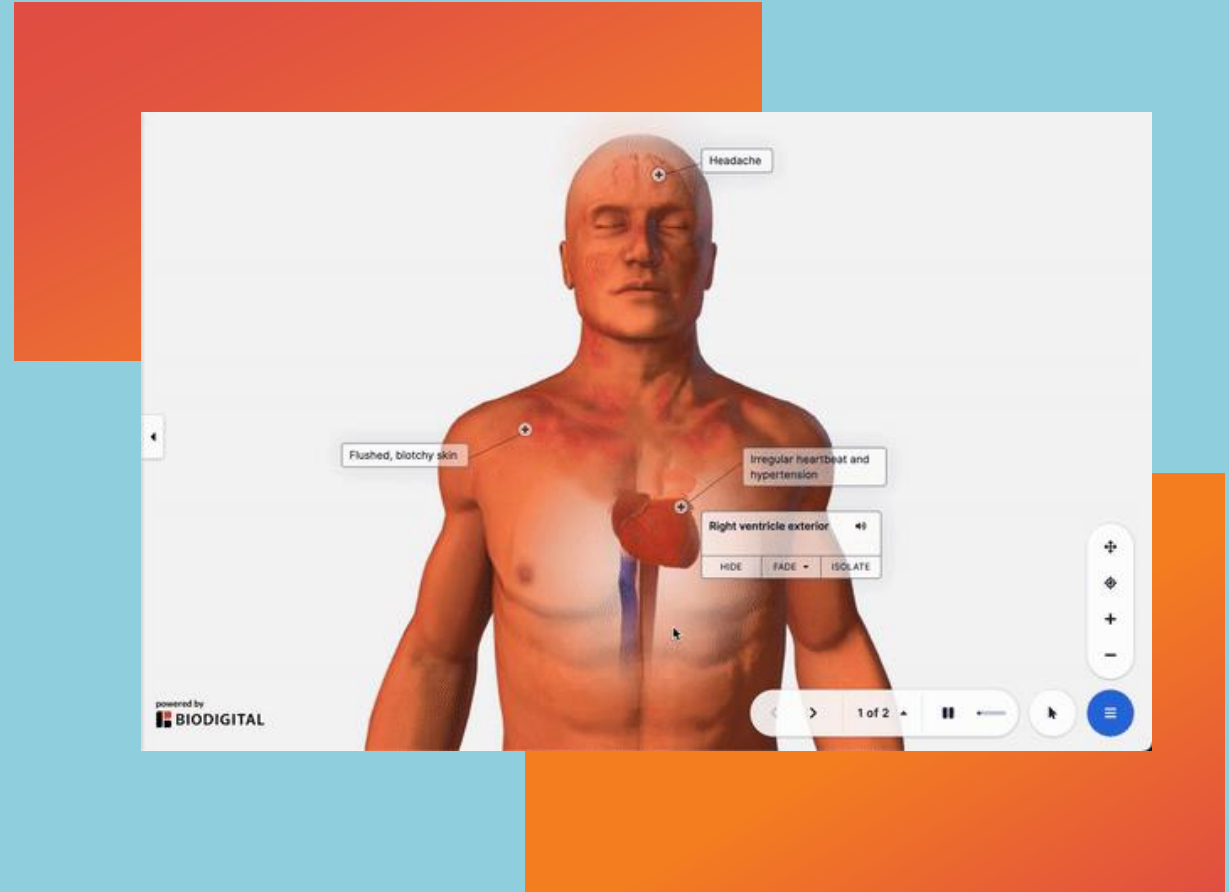
Reimagine learning

Master content via application and active learning.

A defining focus on **clinical judgment**.

Modalities today's learners prefer.

Clinical-ready students.



Preview Sample Podcast
Blood Pressure, Engage
Fundamentals



The Engage Series Development Process



Market Research: Problems to be solved (for faculty and students), table of contents development



Masters prepared or higher nurse educators authored content



External nurse educators provided reviews and feedback on content



Content reviewed by development editor, bias, and DEI committees

Nurse Educator

OPEN

Benefits of an Online Interactive Educational Program Over Traditional Textbooks

Beth Cusatis Phillips, PhD, RN, CNE, CHSE; Janean Johnson, DNP, RN, CNE; Nikita Khalid, MS; Nicole Zapparrata, MA; and Glenn Albright, PhD

ABSTRACT

Background: Technology has become increasingly prominent in nursing education. Online learning platforms may be more useful than traditional textbooks in promoting active learning, engagement, and satisfaction.

Purpose: The purpose was to evaluate a new online interactive education program (OIEP) that replaces traditional textbooks and to understand student and faculty satisfaction, perceived efficacy of the program, student engagement, and whether the OIEP can help NCLEX preparation and reduce burnout.

Method: This retrospective study assessed student and faculty perceptions of the semester using quantitative and qualitative measures. Perceptions were measured at 2 time points each: halfway through the semester and at its conclusion.

Results: Mean efficacy scores of groups were high at both time points. Students showed significant increases in content constructs, which were supported by faculty perceptions of students. Students agreed that using the OIEP throughout their program would significantly increase preparedness for NCLEX.

Conclusion: The OIEP may better support nursing students throughout school and on NCLEX than traditional textbooks.

Keywords: active learning, nursing education, student engagement, technology

Cite this article as: Phillips BC, Johnson J, Khalid N, Zapparrata N, Albright G. Benefits of an online interactive educational program over traditional textbooks. *Nurse Educ.* 2023. doi:10.1097/NNE.00000000000001398

Nursing education is challenging, exciting, and busy. Students are eager to learn and begin doing the things “that nurses do.” Student engagement is directly linked to student success.^{1,2} However, maintaining student engagement throughout a rigorous program is a difficult undertaking. Students have long days of class, laboratory, clinical practice, and hours of reading and homework. Understanding of

effective educational practices is essential to promote student learning and retention and is critical to successfully prepare nursing students.

It is imperative that students are given opportunities to engage in active learning to improve their satisfaction, be more engaged, enhance learning, and retain knowledge. With current media and technology platforms, students have 24/7 access to learning tools. In addition, today's students who grew up with computers are technologically savvy and interested in more innovative ways of learning.³ Research has found that students were more satisfied and engaged when study content included technology^{4,5} and were more motivated and engaged when learning was gamified.⁶

Evidence shows up to 80% of university students do not read the assigned materials.^{7,8} For years, faculty have reported that students do not read all the assigned pages.⁹ In fact, some students never even purchase the required textbook.¹⁰ Knowing that students may not completely assigned readings in traditional textbooks, engaging didactic and interactive pedagogy driven by educational technology may incentivize students to learn. Such technology can address various learning preferences, create an active learning environment to engage and focused on learning. Thus, technology may be helpful in promoting active student engagement and satisfaction, espousing evolutions, resulting in online interactive videos, emails, podcasts, and web-

Author Affiliations: Strategic Nursing Advisor (Dr Phillips), Nursing Education Strategist (Dr Johnson), Research Scientist (Ms Khalid), Associate Psychometrician (Ms Zapparrata), and Director of Simulation Research and Development (Dr Albright), ATI Nursing Education, Leawood, Kansas.

All the authors are employees of Ascend Learning, LLC, the parent company of Assessment Technologies, LLC (ATI), which developed and owns *Evidence Fundamentals* (Online Interactive Educational Program, Copyright © 2023 Assessment Technologies Institute, LLC).

The authors declare no conflicts of interest.

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Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's website (www.nurseducatoronline.com).

Accepted for publication: February 25, 2023

Early Access: March 7, 2023

DOI: 10.1097/NNE.00000000000001398

Nurse Educator • Vol. 00 • No. 0, pp. 1–6 • Copyright © 2023 The Authors. Published by Wolters Kluwer Health, Inc.

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JID: JNLS

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Teaching and Learning in Nursing 000 (2023) 1–5

Contents lists available at ScienceDirect

Teaching and Learning in Nursing

journal homepage: www.journals.elsevier.com/teaching-and-learning-in-nursing

Theoretical underpinnings of technology-based interactive instruction

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ARTICLE INFO

Article History:
Accepted 4 October 2023

Keywords:
Active learning
Digital
Graduate
Instruction
Learning theory
Multimedia
Nursing
Online

ABSTRACT

Background: This paper discusses the underlying conceptual theories that support the use of technology-based educational tools and their implications on student learning outcomes.

Innovations: The use of technology-based educational tools has expanded where virtual classrooms, digital simulations, real-time feedback, interactive quizzes, podcasts, and other multimedia tools are integrated into instruction, especially throughout higher education. These educational tools are hypothesized to augment both student learning and attitudes toward learning. The instructional components in technology-based learning are engrained in theory and supported by empirical research.

Implications: The relationship between active learning and student success, how technology-based educational tools can be designed to facilitate active learning, and how they positively impact student self-efficacy and self-regulation, including metacognitive awareness will be explicated.

Conclusions: The theoretical underpinnings of online, interactive learning will also be applied to trends in nursing curricula.

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Introduction

Instruction has drastically changed over the past decade with advances in technology and media. Specifically, there has been an influx in technology-based educational tools that immerse learners in the educational experience, and an upward trend in the amount of people using online learning tools (Marr, 2022; World Economic Forum, 2020). E-learning such as virtual classrooms, digital simulations, real-time computer-based feedback, interactive quizzes, podcasts, and other multimedia tools are becoming the norm for student learning in higher education (Akers, 2018; Brisk, et al., 2022). These educational tools and platforms are hypothesized to augment both student learning and student attitudes toward learning. This paper discusses the underlying conceptual theories and empirical research that support technology-based educational tools and their implications on student learning outcomes. Specifically, it discusses 1)

characteristics of active and passive learning, 2) research demonstrating how active learning strategies and technology-based instruction improve student learning, 3) multimedia learning theory and its relationship with students' cognitive and noncognitive factors such as self-efficacy, motivation, and self-regulation, including metacognitive awareness, which is highly predictive of student academic success, and 4) how these types of educational tools help optimize cognitive load during learning. Ultimately, the research supporting the theory behind using technology-based educational tools can be applied across various disciplines throughout primary and secondary school, higher education, and postgraduate education.

Passive Versus Active Learning

Characteristics of Passive and Active Learning

Before introducing how technology-based learning tools can be used to achieve active learning in students, it is important to understand what passive and active learning are. Passive student learning involves receiving information from an instructor (Johns Hopkins University, 2023). Learning is a form of passive learning, as it is information in a one-way manner through reading large amounts of information sectioned off into topic areas, and present information to learn

Funding: All the authors are employees of Ascend Learning, LLC, the parent company of Assessment Technologies, LLC (ATL), which funded the research. This research did not receive any specific grant from funding agencies in the public or non-profit sectors.

Declaration of competing interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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<https://doi.org/10.1016/j.teln.2023.10.004>

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Please cite this article as: N. Khalid et al., Theoretical underpinnings of technology-based interactive instruction, *Teaching and Learning in Nursing*, <https://doi.org/10.1016/j.teln.2023.10.004>

NCSBN_Loader to Lead....pdf

Engaging Today's Learners: Innovative Strategies for Teaching Nursing Students

By Beth Cusatis Phillips, PhD, RN, CNE, CHSE; and Patty Knecht, PhD, RN, ANE

Major changes in health care in the last several years require profound changes in nursing education and how we teach our students. Technology, patient acuity and students themselves are vastly different from just a generation ago. With educators retiring at a record level (Fang, 2020; Smiley, et al., 2021), there is an opportunity to transform our approaches in the classroom, health care setting and beyond. To help our students succeed in today's health care environment and in the future, nurse educators must embrace new technologies and learn to teach differently than the way they were taught.

Most students entering nursing school today have had access to computers, smartphones and the internet for most – if not all – of their school-age lives. That factor alone has a large effect on the way students learn and absorb information. Firth and colleagues (2019) examined the effects of the internet on the brain – specifically, the brain's structure, function and cognitive development. They found that the internet can alter attention, memory and knowledge and social cognition, both in the short term and in the long term. All three of these areas affect learning.

Obviously, the internet is not going away. Thus, paying attention to these findings is crucial. It underscores educators' need to:

- **Recognize why change must happen;**
- **Understand where their students are; and**
- **Create environments where students can learn and flourish.**

Active learning has been part of nursing education for years. In fact, the concept goes all the way back to Vygotsky in the 1800s (Cambridge, nd). However, many educators in schools of nursing continue to teach the way they were taught:

- **Lecture;**
- **Assign student reading; and**
- **Assess knowledge via testing.**

Around 2000, the concept of the flipped classroom (Ağırman, & Ercoşkun, 2022) was introduced. This is a technique that requires educators to think and teach differently (Jarvis, 2020). This concept includes assigning students prework to complete before class to give them content and context in class. In doing so, students become truly engaged in classroom activities, using the knowledge they gained from the prework to solidify their learning.

Despite the success of this technique, many educators have not fully embraced it. Instead, they continue to record classroom lectures and then expect students to be prepared. As a result, many classrooms have not met the mark as far as today's learners.

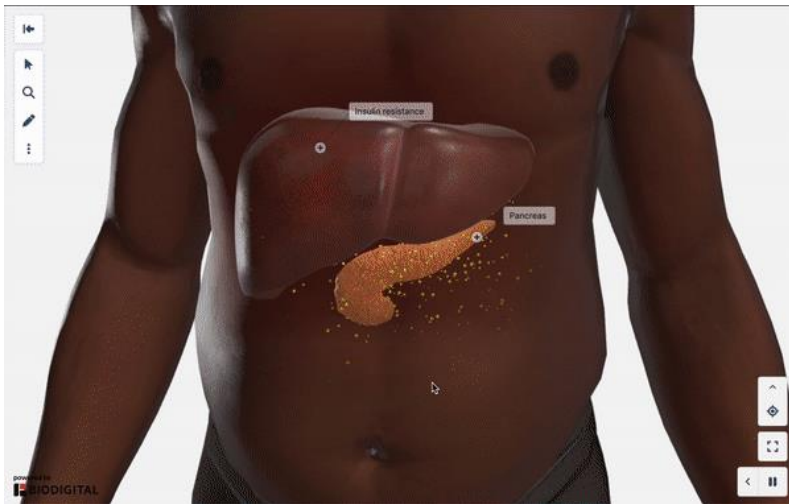
Most students entering nursing school today have had access to computers, smartphones and the internet for most – if not all – of their school-age lives. That factor alone has a large effect on the way students learn and absorb information.

LEADER LEADER FALL 2023

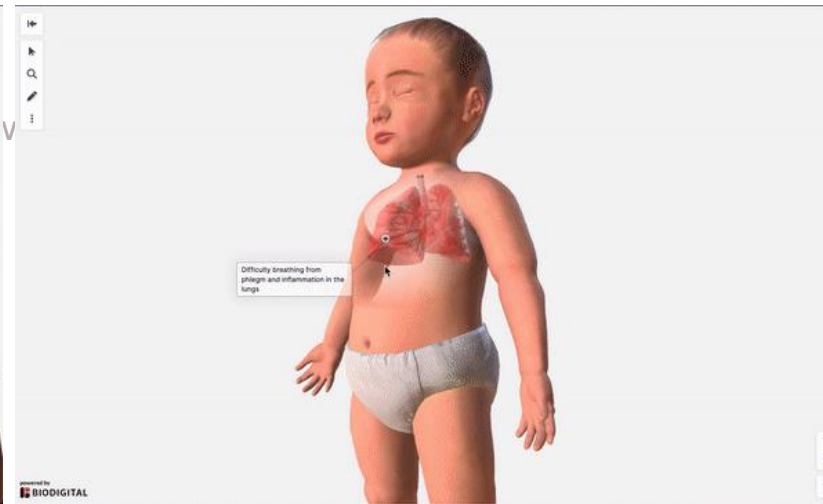
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3-D Animations

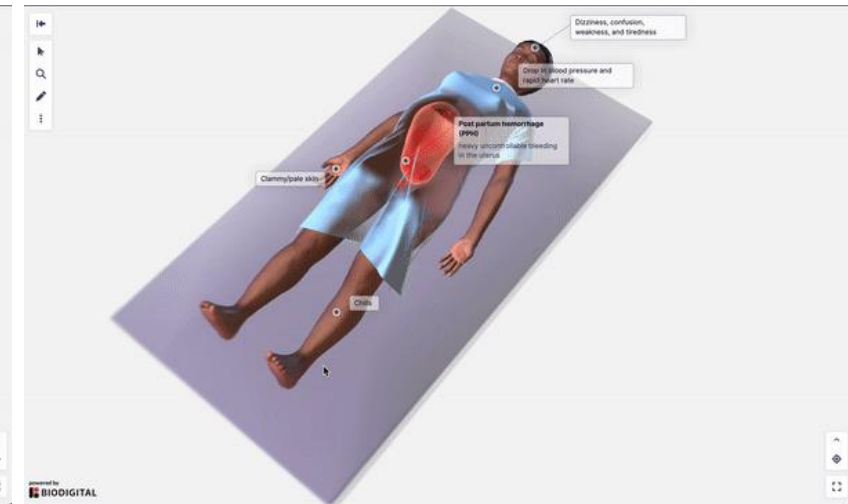
Anatomy, Physiology, and Pathophysiology embedded throughout content, illustrated with still images and 3D animations.



Pancreatic Function





Toddler Anatomy



Postpartum Hemorrhage

Client Chart Activity


 **Tutorial:**
Engage Fundamentals RN 2.0


 Close

Tissue Integrity


Time spent: 00 : 03 : 44

Submit for Grading




 **EHR Tutor™**
Product Demo - RN



 Sameena Tayler Student Chart EF 40
Female, 9/24/19XX (42 years)
MRN: 2375365


Attending: Xia Chung, MD
Allergies: none
Code Status: Full Code

 **SUPPORT** : none

Client Chart Activity



 **Audio Tools** 


 Documentation Case Study

A nurse is caring for Sameena Tayler, a 42-year-old client who experienced a spinal cord injury at the level of T3 seven years ago. Mrs. Tayler has paraplegia and uses a motorized wheelchair. She is admitted to the hospital for treatment of a pressure injury on her coccyx.

Upon assessment of the client's coccyx, the nurse notes the following information about the pressure injury:

- Length: 10 cm

 1 ... 13 14 15 16 17 

 **SUPPORT**

Engage Adult Medical Surgical: Alterations in Gas Exchange

Example of Faculty Resource Suite

- Discussion questions
- Additional case studies
- Self-reflection activities

Case Study (Slide 1 of 2)

- The nurse is caring for a 68-year-old client who recently retired. The client lives with their partner in a single-story home that is part of 55+ senior living community. The client's partner is also retired and prepares all the meals eaten at home. The client reports an increase in daytime sleepiness. This is surprising, as the client recently retired from a full-time job as a restaurant manager. The restaurant was fast-paced and he often had to eat on the run at work; usually fried chicken with rolls and gravy or a double cheeseburger with fries and a milkshake. He worked 12-to-14-hour days and had little time to exercise. The client is a heavy cigarette smoker—1 ½ packs per day since he was 20 years old—and past attempts to quit smoking were unsuccessful. The client is otherwise asymptomatic.
 - Vital signs: BP 138/88, Temp. 98.6 orally, HR 90, Resp. 22, O2 Sat 95% on room air, height 5 feet 10 inches, weight 220 pounds, BMI 31.6.
 - Medications: The client is on no prescription medications at present. He takes a multivitamin daily and takes ibuprofen 200 mg prn.
 - Orders: The provider has ordered a polysomnography overnight sleep study and prescribed varenicline for smoking cessation.



6. Develop strategies that facilitate the increase in the percentage of associate degree nursing to Bachelor of Science in nursing students, including, but not limited to, the development of strategies that strengthen the high school to community college nursing pipeline.

Statement of Need

- COVID-19 fueled a lack of academic preparedness, with elementary and secondary schools that went remote during the 2020-2021 school year seeing lower achievement growth, particularly for students attending high-poverty schools, according to a new working paper from the National Bureau of Economic Research.
- Identifying students who could benefit from remediation or additional services can help prevent attrition and ensure students are prepared to successfully complete the NCLEX.
- One analysis found that ATI Nursing's Content Mastery Series assessments are a powerful source of information about students as they progress through the program, helping identify the students least likely to pass the exam. Group Comprehensive Predictor means show that as students fail to achieve Proficiency Level 2 or above on even one CMS test, the percentage of students classified as "highly likely to pass NCLEX" (96% or above) drops dramatically. Identifying students who need extra help therefore can create an opportunity for educational leaders to engage students at risk of failing with resources that may help them improve. (ATI Research Brief)

8. Developing or scaling efforts that lead to additional clinical placements for nursing students

Statement of Need

- According to AACN's report on 2023-2024 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing, U.S. nursing schools turned away 65,766 qualified applications (not applicants) from baccalaureate and graduate nursing programs in 2023 due to insufficient number of faculty, clinical sites, classroom space, and clinical preceptors, as well as budget constraints.
- Due to the difficulties of COVID-19, virtual clinical practicums have also been shown to be effective at preparing nursing students. (2021 Nursing Educator Study)
- New nurses struggle with performing integrated nursing interventions and feelings of inadequacy related to lack of knowledge, clinical skills, and the need to translate theory into practice. (National League of Nursing)

Continued on the next slide

Lessons

Blood Pressure

Pulse

Body Temperature

Respiration and Oxygen Saturation

Skills

Assessing Body Temperature

Assessing Peripheral Pulses

TOOLS

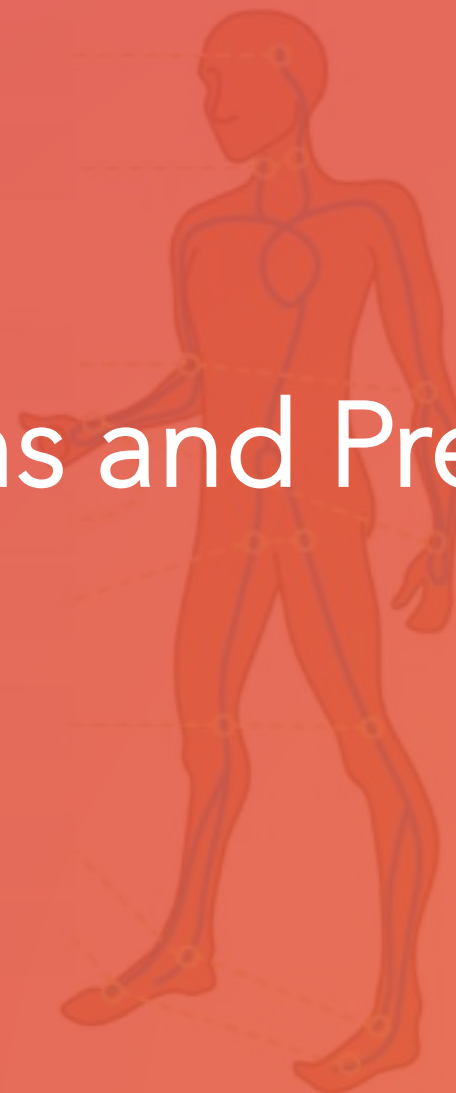


Glossary

temporal

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Clinical Simulations and Prep

Simplify Simulation

Teaching and measuring clinical judgment

Save time when planning

- Prewritten unfolding cases for class, lab, and clinicals

Reduce workload

- Ready-to-use lesson plans:
 - Clinical judgment debriefing questions
 - Active learning templates
 - Care plan activities
 - + additional learning activities and more

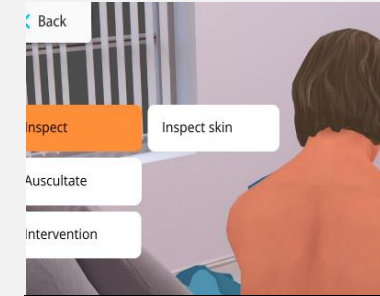
Easily access clinical experiences



Real Life Clinical Reasoning Scenarios



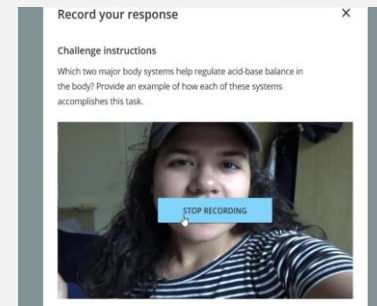
EHR Tutor



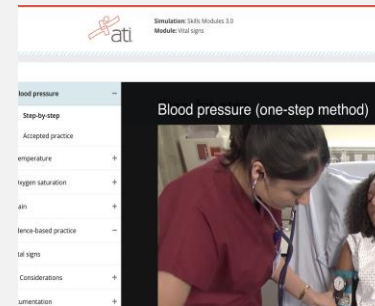
HealthAssess



Civility Mentor



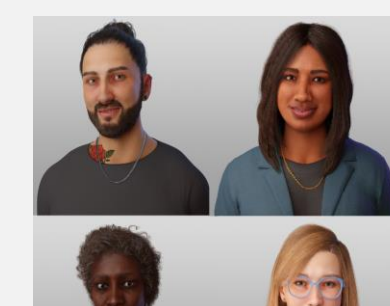
Video Case Studies



Skills Modules



Nurse's Touch
6 Solutions



Swift River
Simulations

*Clinical reasoning is best learned experientially in class, clinical, and simulated environments.
(Herron et al., 2016)*

Real Life Clinical Reasoning Scenarios

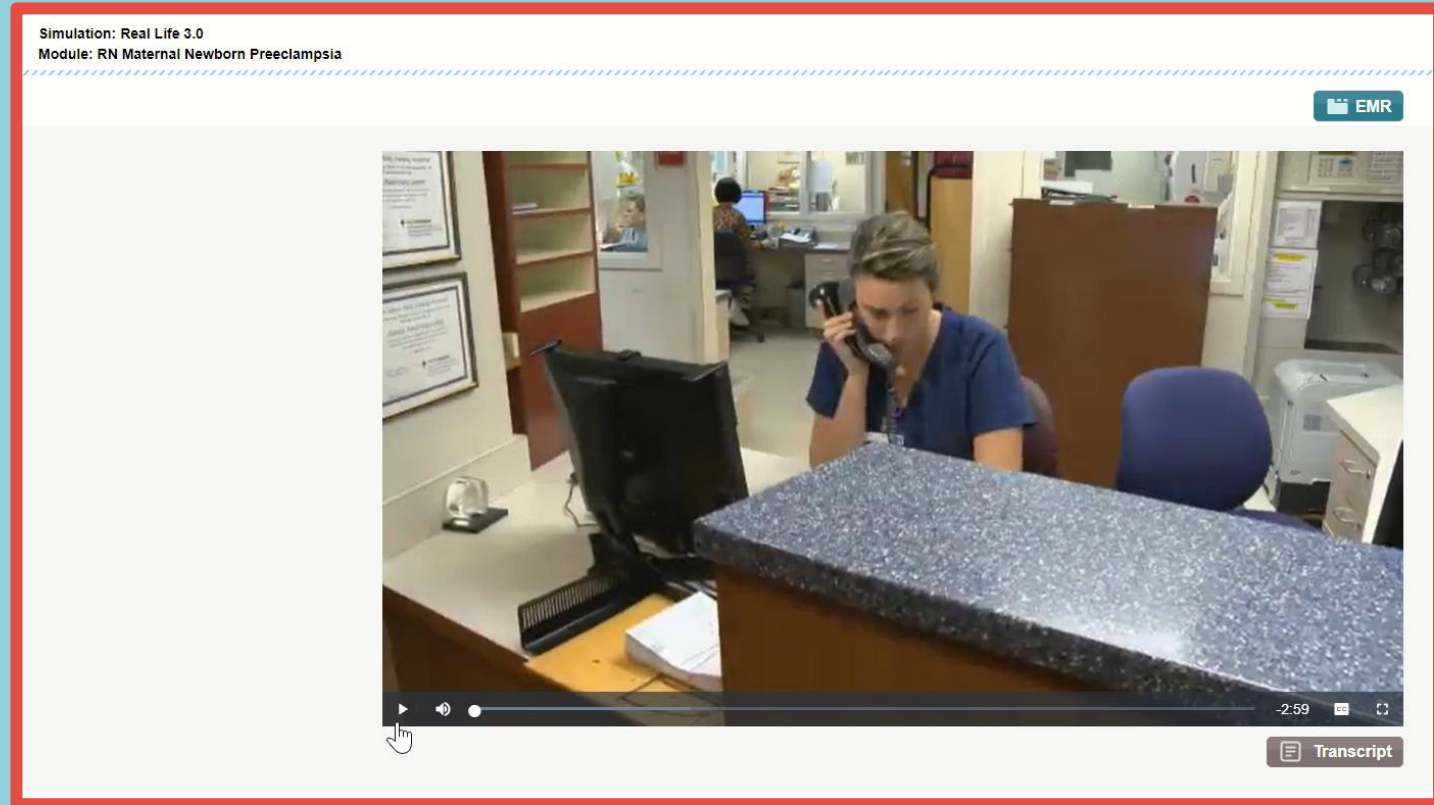
Develop clinical reasoning skills in a safe environment

- Branching logic

Track & measure clinical decision-making ability

- Reporting outcomes
 - Overall decision-making ability
 - NCLEX Client Needs categories
 - QSEN
 - Relevant body function

Provide consistent, real-life clinical experiences



Lessons

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TOOLS



Glossary



NCLEX Prep Immersion

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NCLEX Preparation & Success

↑ 96%
PASS RATE

Capstone Content Review

Weekly content & assessments
Prepare for Predictor exit exam
Individualized remediation plans
Weekly progress report to program

↑ 96%
PASS RATE

ATI Live Review

3 Days, Virtual or Onsite
Customized or Comprehensive
Comprehensive NCLEX Review Book
Study Plan

↑ 98%
PASS RATE

Virtual ATI

1:1 individualized online course
Asynchronous, 24/7 availability
"Green Light" to pass NCLEX
Weekly progress report to program

Guided, comprehensive content review that prepares students for the Comprehensive Predictor

CAPSTONE

LIVE REVIEW

VIRTUAL-ATI

30 days prior to graduation, students start this 12-week online review with a virtual coach. After the review, a study plan guides them until test day.

GRADUATION

NCLEX

BOARDVITALS

BOARDVITALS

BoardVitals

3,300+ unique questions
CAT testing engine with unlimited attempts
Helps students connect concepts to practice
Included with every review purchase

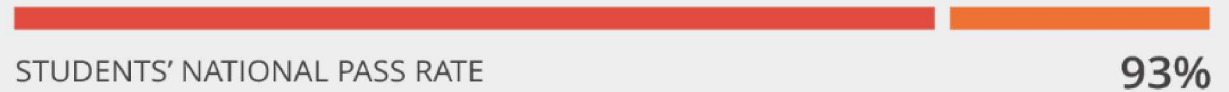


The Proof is in the Pass Rates



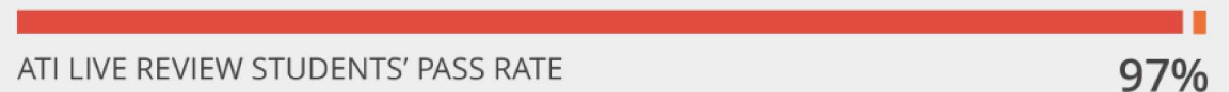
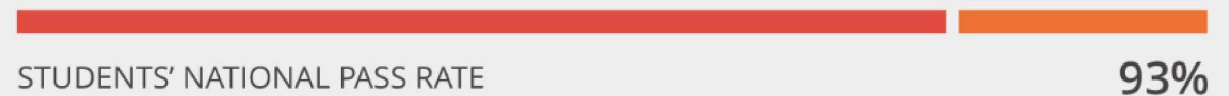
Virtual ATI Outcomes

NCLEX®-RN



Live Review Outcomes

NCLEX®-RN



*All NCLEX pass rate is data based on H1 2024 NCLEX-RN and PN test takers. National pass rates were obtained from the NCSBN website and are for first-time, US educated NCLEX-RN and PN test takers. Virtual-ATI pass rates are self-reported NCLEX outcomes for students who participated in Virtual-ATI and received a Green Light to take NCLEX from their Virtual-ATI Educator. These comparisons are descriptive in nature and do not reflect a true experimental design.



Lessons

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TOOLS



Glossary



Checklist



Faculty Solutions

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Educator Integration Tools

Superior Educator Support

- Educator Implementation Guide (EIG)
- Content Outline
- Content Overview
 - Simulation content overview
 - Learning modules content overview
- Lesson Plans
- Student & Faculty Instructions
- Simulation Tutorial Video
- Student Overview Video
- Expert EHR Charts



Virtual Simulation Modules

These five modules contain the following.

VIRTUAL PRACTICE: SHIRLEY WILLIAMSON (BRONCHITIS)

Student Learning Outcomes

- Perform a focused respiratory assessment.
- Perform a focused skin assessment.
- Identify needed tools for client assessment.
- Recognize auscultation techniques for anterior and posterior chest.
- Collect subjective and objective data related to client health concerns.
- Identify expected and unexpected findings.
- Identify subjective data that requires further respiratory and/or skin assessment.
- Implement nursing interventions as necessary based on the client's health status.
- Document findings and interventions in the client's electronic health record.

Scenario Overview

Shirley Williamson is a 67-year-old female who was admitted to the hospital with a diagnosis of bronchitis and exacerbation of eczema. The client reports fatigue and a productive cough. In this scenario the client is experiencing shortness of breath. Using a client-centered approach, the student will perform required assessments, implement appropriate nursing interventions, and complete necessary documentation.

Content Topics

Virtual Practice-Specific Topics

- Required Environmental Actions
 - Provide client privacy.
 - Perform hand hygiene.
 - Check identification.
 - Adjust bed for ergonomically appropriate care.

- Required Communication Options
 - Subjective data collection
 - Ask about breathing.
 - Ask about cough.
 - Ask about fatigue.
 - Follow up about breathing.
- Required Assessments
 - Inspect head and neck skin.
 - Inspect respiratory effort.
 - Inspect anterior chest skin.
 - Check skin turgor.
 - Auscultate anterior chest breath sounds.
 - Inspect the posterior chest skin.
 - Auscultate posterior chest breath sounds.
 - Check oxygen saturation.
 - Check upper extremity skin.
 - Inspect abdominal skin.
 - Inspect lower extremity skin.
 - Check lower extremities for edema.
- Required Nursing Interventions
 - Elevate the head of the bed.
 - Apply oxygen.
- NLN Competencies
 - Nursing Judgment
 - Spirit of Inquiry
- BSN Essentials
 - Scholarship for Evidence-Based Practice
 - Information Management and Application of Patient Care Technology
- Baccalaureate Generalist Nursing Practice
- Quality and Safety Education for Nurses (QSEN)
 - Safety
 - Evidence-Based Practice
 - Informatics

Recommended Use

Learners can use *Virtual Practice* to reinforce basic assessment skills in body systems:

- In the classroom with faculty guidance and coaching.
- In the lab with small group discussion.
- Independently to solidify learning and build confidence.
- To remediate areas of deficiency prior to the next assessment or unit of study.

Learners can use the *Virtual Challenge* to strengthen assessment skills:

- Prior to the clinical experience begins.
- To reinforce system specific assessments.
- To remediate learners needing additional assessment practice.
- As alternative clinical experiences for clinical make-up, etc.

Consulting

- Complete Partners receive complimentary consultation days with ATI's expert nurse educator consultants
- Can be virtual or in-person
- Great for both novice and experienced educators
- Any ATI partner can purchase consulting options as full or half days

Faculty Role Support

- Assessment and evaluation across learning environments
- Classroom management
- Identifying strategies to promote diversity, equity, and inclusion
- Civility
- Resilience
- Interprofessional collaboration

Curriculum Support

- Overview of curriculum development process for traditional or concept-based curricula
- Overview of competency-based education and review/incorporation of core competencies for The Essentials* (1 or 2 days)

NCLEX Readiness

- Promoting clinical judgment with active learning strategies
- Clinical judgment for clinical faculty
- NCLEX®-style item writing
- Next Generation NCLEX® case study development with item writing
- Item analysis and test blueprinting

Accreditation Preparation

- Overview of the candidacy or accreditation process
- Expert review and feedback for accreditation outcome standard OR curriculum standard
- Mock site visit
- Overview of program evaluation and systematic evaluation plan
- Review components of a systematic evaluation plan
- Revise components of a systematic evaluation plan
- Best practices using ATI data in program evaluation

Simulation

- Application of simulation best practices
- Simulation design principles (class, lab, clinical)
- Debriefing across the curriculum

ATI Academy on demand

As an ATI Complete client, faculty have access to the following courses in ATI Academy:

- CNE Prep Course
- CNE (cl) Prep Course
- CNE (n) Prep Course

Grant Priorities	Supportive ATI Solutions
2	Complete Solutions
3	Faculty Solutions
4	Program Manager: Curriculum, Evaluation, SEP, Accreditation, Clinical Placements
5	Academic Readiness (LAUNCH) Engage Series; Testing & Remediation; NCLEX Prep; Evidence-Based Tutorials, Curriculum Supplements
6	Academic Readiness; Evidence-Based Tutorials (Clinical Judgment)
8	Clinical Prep

A blurred background image showing a group of people in a meeting or workshop. Several hands are raised in the air, indicating an interactive session. The background is out of focus, showing large windows and some colorful sticky notes on a wall.

Questions & Next Steps

**For additional support:
Ashlie Allen
Ashlie.allen@atitesting.com**