NJIT
New Jersey Institute of Technology

NJIT | CENTER FOR EDUCATIONAL INNOVATION AND EXCELLENCE (CEIE)

InspirED Teaching
THE CEIE NEWSLETTER

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InspirED Teaching is a quarterly newsletter published by the Center for Educational Innovation and Excellence (CEIE) at the New Jersey Institute of Technology.

Contact us! | ceie@njit.edu

Welcome Back Highlanders!

As the Fall 2025 semester gets underway, the CEIE team is excited to welcome new and returning faculty and instructors to a fresh academic year filled with possibilities. Whether you're diving into new courses, revisiting familiar ones, or experimenting with innovative ideas, we're here to support your teaching journey. This semester, we continue to champion creative,

student-centered, and evidence-based practices that elevate learning and foster academic success. Keep an eye out for upcoming events, new resources, and opportunities to connect with peers who are reimagining what teaching can be at NJIT.

Read on to see what we were up to this summer, and what we have planned so far for the year ahead.

Experiential Learning Conference In Review…

On August 27, 2025, CEIE hosted an **Experiential Learning Conference** at NJIT's Weston Hall. Centered on the theme *"Learning in Action: Experiential Pedagogy, Practices, and Pathways,"* the conference brought together faculty, staff, and students to explore how direct experience, active engagement, and purposeful reflection can enrich teaching and learning.

The day began with a welcome from CEIE Director Nikki Bosca, followed by two keynote addresses from 2024 Masters Teachers. Ms. Padma Natarajan offered practical strategies for embedding experiential methods into diverse courses and Dr. Maria Stanko highlighted the role of field-based, community-driven experiences in fostering deeper student engagement and enjoyment.

Across breakout sessions, participants engaged with innovative approaches such as:

- Using Extended Reality (XR) to enhance lab experiences and connect the classroom and workplace.
- Implementing service-learning models to link academic coursework with community needs.
- Showcasing student-led projects in institutional research and assessment, highlighting how administrative settings can function as dynamic learning environments.

...and so much more!

The afternoon concluded with a visit to NJIT's Makerspace, where student volunteers gave hands-on demonstrations of Makerspace technologies, bringing the spirit of experiential learning to life. Attendees left with a laser engraved CEIE keychain, practical strategies, fresh ideas, and a renewed sense of excitement. The inaugural conference served as a commitment to experiential learning with faculty and staff eager to integrate experiential learning into their own courses and programs. Watch the video above to see highlights from the day!

Fall 2025 Events

This semester the CEIE has two special events planned for our instructional community. Read below to find out more–hope to see you there!

From Idea to Publication: Navigating IRB for Education Research

A collaboration between the Center for Educational Innovation and Excellence and NJIT's Institutional Review Board

Date: October 1st 2025
Time: 2:30pm – 4:00 PM
Location: Eberhardt Hall, Room 112

Are you experimenting with new teaching strategies and wondering if your work could be published as education research? Many faculty explore new assignments, surveys, or classroom innovations but later discover they cannot share results because IRB approval was not secured in advance.

This 90-minute interactive workshop will help faculty and instructors learn:

- What counts as *human subjects research* in educational settings
- When classroom projects require IRB review (and common misconceptions to avoid)
- Key steps in NJIT's IRB process, including timelines, training, and exemptions
- Practical strategies for planning ahead so your results can be published

The session will feature a Q&A with IRB staff and NJIT educators who have successfully navigated the process. Participants will leave with practical guidance, resources, and next steps to turn classroom ideas into conference presentations or journal articles.

Whether you're exploring the Scholarship of Teaching and Learning (SoTL) or simply want to avoid common pitfalls, this session will give you the tools and confidence to move from innovation to publication.

Light refreshments will be served. Please **RSVP** for this event to reserve your seat!

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Service Learning as Experiential Learning: Engaging Students, Impacting Communities

Date: November 12th, 2025

Time: 2:30–4:00 PM
Location: TBA

Service learning connects classroom learning with real-world community engagement, creating opportunities for students to apply their knowledge while making a tangible impact. In this 90-minute interactive workshop, faculty panelists will share how they have successfully integrated service learning into their courses, highlighting both student learning outcomes and community partnerships.

Participants will:

- Learn the fundamentals of service learning as a pedagogy
- Hear real-world examples from NJIT educators across disciplines
- Explore strategies for building meaningful community collaborations
- Discuss ideas for incorporating service learning into their own teaching

This session underscores NJIT's commitment to experiential learning as outlined in the university's strategic plan and provides faculty with practical tools to bridge classroom innovation and community impact.

Light refreshments will be served. Please **RSVP** for this event to reserve your seat!

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Donuts and Discussion: On a Coffee Break

Over the years, Donuts & Discussion has served as a valued space for the NJIT teaching community to connect, share teaching strategies, and exchange pedagogical ideas. For Fall 2025, Donuts & Discussion will take a brief hiatus as CEIE focuses on upcoming symposia and semester events. Don't worry–Donuts & Discussion isn't gone. We'll be back in a future semester with more conversations, more ideas, and (**of course**) more donuts. In the meantime, we are excited about what's ahead and look forward to sharing these upcoming opportunities for professional connection and growth.

See You Soon!

Consulting and Workshops

Consulting appointments

- Interested in enhancing your teaching? The CEIE is offering all NJIT instructors 45-minute, one-on-one or small group consultations in person or online to discuss any pedagogical interest or challenge using this booking link. Whether you are looking to integrate active learning, redesign assessments, or align your curriculum with

neurocognitive insights, these personalized sessions are an opportunity to collaborate, reflect, and refine your teaching. We look forward to serving as your teaching resource. If you have additional questions, please see our FAQ. *Please note: faculty consultations are confidential and non-evaluative.*

CEIE Workshops by Request!

- Are you interested in developing your department's pedagogy? Is there a shared teaching challenge or theme your faculty would like to explore? The CEIE offers customized workshops by request. We will work with you to design a session that fits the goals and context for your group. Email ceie@njit.edu to get started! Reach out and we will bring the experience to you!

Did You Know?
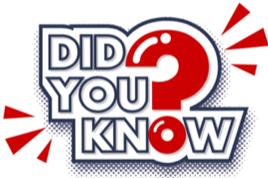
Wait Time & Silence as a Teaching Tool

Even the greatest minds need time to answer questions–The final "Jeopardy!" song known as "Think!" is 30 seconds long!

Did you know that most instructors only give **1 second** of wait time after asking a question before repeating, rephrasing, or giving their own answer?!

Research shows that deliberately pausing for *just* 3–5 seconds after asking a question or after a student response can significantly deepen learning, with student answers becoming longer, more thoughtful, and more confident. Next time you post questions in your classroom, queue up the final "Jeopardy!" song and watch classroom participation grow!

Rowe, M. B. (1974). Relation of wait-time and rewards to the development of language, logic, and fate control: Part II-Rewards. *Journal of research in science teaching*, *11*(4), 291-308.

Rowe, M. B. (1986). Wait time: Slowing down may be a way of speeding up!. *Journal of teacher education*, *37*(1), 43-50.

Stahl, R. J. (1994). Using" Think-Time" and" Wait-Time" Skillfully in the Classroom. ERIC Digest.

Häusler, J., Gartmeier, M., Grünewald, M. G., Hapfelmeier, A., Pfurtscheller, T., Seidel, T., & Berberat, P. O. (2024). Too much time or not enough? An observational study of teacher wait time after questions in case-based seminars. *BMC Medical Education*, *24*(1), 690.

Try One Thing Challenge

Retrieval Practice for Learning

The challenge: Allocate time for retrieval practice in your next class by encouraging learners to 'reach' into their memories to retrieve answers.

The Background: Retrieval practice is defined as, "an active attempt by a student to recall or recognize, and then reconstruct their memory of knowledge during initial learning (Agarwal, Nunes, & Blunt, 2021)." Learning is traditionally thought to occur during episodes of studying, whereas retrieval of information is traditionally thought to occur during testing to assess learning. It's time to flip the narrative. Retrieval practice is not the same thing as traditional exams–it's the opposite–it is a learning strategy. Retrieval practice includes low-stakes and no-stakes strategies such as writing prompts, brief Canvas quizzes, flashcards, Kahoot, etc. Research demonstrates that frequently including these retrieval strategies during initial learning boosts long-term memory. This is because retrieval physically changes the brain because actively retrieving information from memory strengthens neural pathways associated with that information, and prunes pathways that are irrelevant.

How the challenge works: In your next lesson, it's time to switch things up! First, have students put away their phones and close their laptops; retrieval practice is most effective when students recall without looking. Then, display relevant practice questions. Here are some example retrieval prompts:

- "Brain dump": retrieve as much as you can in 2 minutes
- Retrieve and write down three key concepts from class
- Take a brief Canvas quiz without looking at your materials
- Write down a new example of a topic you're learning about
- Write down something about today's lesson that is relevant for your life
- Draw an image that highlights concepts from yesterday's lesson

Retrieval practice is a low-stakes strategy for both instructors and students. Instructors can reinforce learning without creating lengthy assessments or grading responses, while students can concentrate on mastering the material without the pressure of grades.

Worried about extra work? Create similar, yet different, questions for practice using Google Gemini (which all NJIT faculty, staff, and students have *free* access to). Here is a sample prompt: "Can you create similar yet different questions to target the same __(insert learning goal)__as the question "What is the difference between static and dynamic equilibrium?" Make these multiple choice questions with probable distractor answer choices that make retrieval more effortful." **Remember**: you are the subject matter expert, so check over the questions before sharing them with students, and be transparent about your AI use!

Agarwal, P. K., Nunes, L. D., & Blunt, J. R. (2021). Retrieval practice consistently benefits student learning: A systematic review of applied research in schools and classrooms. *Educational Psychology Review*, *33*(4), 1409-1453.

Butler, A. C., Marsh, E. J., Slavinsky, J. P., & Baraniuk, R. G. (2014). Integrating cognitive science and technology improves learning in a STEM classroom. *Educational Psychology Review*, *26*, 331-340.

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Owens, M. T., & Tanner, K. D. (2017). Teaching as brain changing: Exploring connections between neuroscience and innovative teaching. *CBE—Life Sciences Education, 16*(2), fe2. https://doi.org/10.1187/cbe.17-01-0005

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