

Cultivating Critical Thinking, Compassion, and Competence in the Age of AI

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Background and Context

University students routinely produce traditional assignments (research papers, case study analyses) to build advanced technical competencies and demonstrate knowledge, but as generative artificial intelligence rapidly reshapes professional and academic landscapes, we must update how we think, teach, and assess higher education (Alqahtani et al., 2023).

Educators face a pressing question: How should pedagogies adapt to prepare students for a world in which routine tasks can be automated in moments? Rather than perceiving emerging technologies solely as a threat to academic integrity, educators have a strategic opportunity to rethink course design (Alqahtani et al., 2023). What if AI were leveraged as a collaborative cognitive scaffold rather than a shortcut? What if curricula were deliberately structured to cultivate critical thinking, real-world empathy, and active collaboration?

Scholars contend that meaningful learning requires active and reflective engagement in which knowledge is not merely memorized but constructed through deliberate practice (Carpenter & Sumiala, 2021; Torrents et al., 2026). As higher education increasingly emphasizes career readiness and problem-solving abilities, supporting students' capacities for critical discernment, ethical reflection, and human-centered design becomes more essential than ever (Wang et al., 2017).

At the Lilly Conference on Evidence-Based Teaching and Learning in San Diego, California, sessions emphasized active learning, inclusive pedagogies, and integrating AI in higher education. The following key insights and practical strategies, drawn from conference sessions, can be readily incorporated into food operations, hospitality management, and broader university curricula.

Conference Takeaways and Classroom Applications

Re-Framing AI as a Collaborative Cognitive Scaffold

Sessions addressing teaching in the age of artificial intelligence emphasized moving away from reactionary bans toward proactive integration. Rather than treating AI as an adversary, instructors can teach students how to audit, critique, and refine machine-generated output (Alqahtani et al., 2023).

In operational and management courses, instructors can task students with using generative AI to draft baseline menus, operational schedules, or logistical plans. Students must then critically evaluate these outputs against real-world constraints—such as nutritional guidelines, food safety protocols, and financial variances—submitting a marked-up audit alongside their final

deliverables. This pedagogical strategy moves students beyond passive consumption of automated answers, retraining them to become active, highly discerning evaluators equipped with the analytical oversight required in modern industry leadership.

Designing Authentic, Process-Oriented Assessments

To combat superficial or copy-and-paste submissions, conference presenters highlighted the value of making the learning process visible. When assignments reward iteration, reflection, and localized problem-solving, the temptation to rely solely on automated shortcuts decreases significantly.

Incorporating multi-stage project milestones—such as initial handwritten ideation sketches, peer review logs, and reflective journaling following experiential labs—allows instructors to grade the journey of critical thinking rather than just the final product.

Implementing Universal Design for Learning (UDL) in Applied Settings

Inclusive teaching requires acknowledging the diverse ways students process information and demonstrate competency. UDL principles encourage providing multiple means of engagement, representation, and expression.

In high-stakes environments like culinary and food production labs, UDL can be operationalized by offering flexible pathways for students to demonstrate mastery. For instance, students might choose between traditional practical exams, digital portfolio documentation, or community-impact projects (such as designing nutritionally balanced, freezer-friendly meals for local organizations like Ronald McDonald House Charities). These diverse options lower anxiety while deepening practical competence and civic responsibility.

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