Grad-AI Framework

AI Integration in Graduate Education

Middle Tennessee State University

1. Program Overview

The Grad-AI initiative provides a structured, institutionally supported framework for integrating artificial intelligence into graduate education at Middle Tennessee State University.

As artificial intelligence continues to reshape research, professional practice, and knowledge production across disciplines, we recognize a shared responsibility to prepare graduate students not only to use these technologies, but also to understand, evaluate, and apply them responsibly within their fields.

Through Grad-AI, we support faculty in designing meaningful, discipline-specific AI-enabled learning experiences while maintaining high standards of academic rigor, ethical awareness, and pedagogical quality. The framework is designed to balance innovation with structure, enabling experimentation while ensuring consistency, quality, and institutional alignment.

Rather than prescribing a single instructional model, Grad-AI supports faculty interested in integrating AI in ways that align with their disciplines, course objectives, and student learning outcomes, with the goal of preparing students effectively for their fields.

2. Integration Pathways

Grad-AI includes three pathways that reflect different levels of AI integration within graduate education.

- **Pathway 1 – Enhance (Existing Course Integration):** This pathway focuses on incorporating AI into an existing graduate course through targeted assignments, activities, or instructional approaches. The course structure and catalog description remain unchanged, but AI is used to strengthen learning outcomes and better prepare students for a professional landscape increasingly shaped by AI. Integration may include the use of AI in research workflows, data analysis, writing processes, or discipline-specific applications, allowing students to engage critically and practically with AI tools within the context of the course.

- **Pathway 2 – Create (New AI-Focused Course):** This pathway supports courses in which AI is a central instructional component. These courses must already be approved through the graduate curriculum process before receiving a Grad-AI designation. In these

courses, AI plays a defining role in course content, learning activities, and assessment, often framed as the application of AI within a specific field or domain. Examples include courses such as *Research Methods Using AI*, *AI Applications in Accounting*, or *AI in Healthcare Practice*. While inclusion of "AI" in the course title is encouraged, it is not required, provided that AI clearly functions as a major component of the course.

- **Pathway 3 – Certify (Graduate Certificate Designation):** This pathway applies to fully approved graduate certificates in which AI is meaningfully integrated across multiple courses. Certificates must complete the full curriculum approval process before being considered for Grad-AI designation. The emphasis is on coherence and depth, ensuring that AI is embedded across the certificate in a way that provides students with a structured and cumulative learning experience. Examples include certificates such as *Applied AI in Business*, *AI for Data Analytics*, or *AI in Healthcare Systems*. These certificates signal that graduates have developed sustained, discipline-relevant competencies in AI.

3. Integration Criteria

Grad-AI designation requires that artificial intelligence be integrated in ways that meaningfully support student learning and disciplinary engagement. The central question guiding review is not whether AI is present, but whether it is used intentionally and effectively.

Across all pathways, we look for clear alignment between AI use and learning outcomes, structured opportunities for student engagement with AI tools, and transparency in how AI is incorporated into course or certificate materials. Equally important is the explicit inclusion of ethical and responsible use, ensuring that students are prepared to evaluate AI outputs critically and apply these technologies within appropriate academic and professional boundaries.

The review process is holistic. These criteria function as guiding expectations that support quality control while allowing for disciplinary variation.

4. Application Process

Faculty seeking Grad-AI designation submit an application through a Dynamic Form available on the Grad-AI website. The form is designed to capture both shared elements of instructional design and pathway-specific evidence of AI integration.

All applications include a narrative describing how AI supports learning outcomes, how students will engage with AI, how the faculty member has prepared to teach with AI, and how ethical and responsible use is addressed. Supporting materials, such as syllabi and assignments, provide evidence of implementation.

The application requirements differ by pathway to reflect the scope of integration.

- For Pathway 1 (Enhance), the emphasis is on targeted integration within an existing course. Faculty demonstrate how AI enhances learning through specific assignments and provide a revised syllabus along with a representative activity.
- For Pathway 2 (Create), the focus shifts to courses in which AI plays a central role. Faculty provide the official catalog course description, along with a syllabus and sample assignment, demonstrating that AI is a defining component of the course.
- For Pathway 3 (Certify), the application evaluates integration at the certificate level. Faculty provide the approved certificate description, a list of courses included in the certificate, and syllabi demonstrating how AI is integrated across the curriculum in a coherent and sustained way.

Across all pathways, applications are evaluated for intentionality, coherence, and alignment with the goals of Grad-AI.

5. Faculty Preparation and Readiness

We recognize that faculty develop expertise in artificial intelligence through a range of professional, disciplinary, and experiential approaches. Rather than requiring a single standardized training, Grad-AI emphasizes demonstrated readiness.

Faculty are expected to show that they have developed sufficient familiarity with AI tools and their instructional implications to support meaningful integration. This preparation may include formal training, institutional workshops, discipline-specific experience, or self-directed learning.

As part of the application, faculty describe their preparation and explain how it informs their instructional design. This includes articulating how ethical and responsible use of AI is incorporated into the course or certificate.

This approach allows flexibility while maintaining a consistent institutional expectation for instructional quality.

6. Governance and Review

Oversight of the Grad-AI initiative is provided by a Grad-AI Ad Hoc Review Committee appointed by the College of Graduate Studies. The committee includes faculty and academic leaders with expertise in graduate education, instructional innovation, and responsible use of artificial intelligence.

The committee is responsible for reviewing applications, ensuring alignment with institutional goals, and maintaining consistency across disciplines. In doing so, we focus on whether AI

integration supports meaningful learning outcomes, reflects thoughtful instructional design, demonstrates appropriate faculty preparation, and addresses ethical use.

Applications are reviewed during two regular cycles each academic year to align with course scheduling and advising timelines.

Review Timeline

Review Cycle	Application Deadline	Review Period	Decision Notification and Grad-AI Course Attribute Posted	First Semester of Use
Fall Cycle	September 30	Oct 1 – Oct 30	December 1	Spring semester
Spring Cycle	February 28	March 1 – March 30	May 1	Fall semester

Applications may be submitted in advance; however, decisions are issued during designated cycles to ensure alignment with catalog updates and advising processes.

7. Recognition, Support, and Institutional Visibility

Courses and certificates that meet Grad-AI criteria receive a Grad-AI designation in the university catalog and scheduling system. This designation signals intentional and high-quality integration of artificial intelligence and helps students identify opportunities to develop applied AI competencies within their graduate programs.

The initiative is supported through a dedicated Grad-AI website, faculty showcases, and engagement with external partners, including advisory boards and employers. Together, these efforts position AI as a visible, quality-controlled, and strategic component of graduate education at the university and strengthen connections between academic preparation and workforce needs.

The Grad-AI initiative is sponsoring and will continue to sponsor regular events, trainings, and workshops to support faculty, build confidence in adoption, and promote effective implementation. Faculty success stories will also be highlighted and shared to foster community, visibility, and continued momentum.

To support faculty participation, the College of Graduate Studies, in partnership with the Provost's Office, provides development stipends aligned with the level of integration across the three pathways. These stipends recognize the time and effort required for course redesign, development of new AI-focused courses, and integration of AI across programs.

Pathway	Stipend Amount
Enhance (Pathway 1)	$1,000
Create (Pathway 2)	$2,000
Certify (Pathway 3)	$3,000

Stipends are intended to support early adoption and program development and will be evaluated annually based on available resources and assessment outcomes associated with the Grad-AI initiative.

8. Assessment and Institutional Learning

Grad-AI is designed not only as a teaching initiative but also as a mechanism for institutional learning. We collect data on participation, course offerings, and student engagement to better understand how AI is being integrated across graduate education.

Feedback from faculty and students, including participation in surveys, informs ongoing refinement of the framework. These efforts are intended to support continuous improvement and institutional alignment rather than individual faculty evaluation.

Over time, this work will allow us to strengthen graduate education, refine our approach to AI integration, and contribute to broader conversations about the role of artificial intelligence in higher education.