From Curiosity to Career Readiness: Student Perspectives on Integrating Generative AI into Quantitative Business Classes

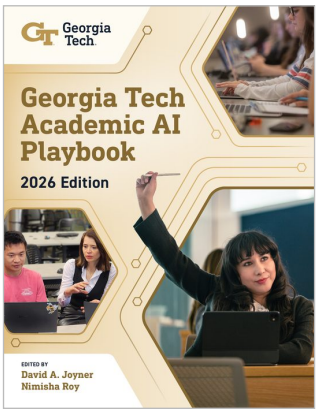
Tatiana Rudchenko

Pages 123–127 of the Georgia Tech Academic AI Playbook, 2026 Edition

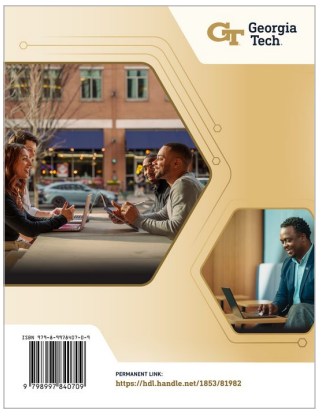
About the Playbook

The Georgia Tech Academic AI Playbook collects stories of how artificial intelligence is being used, taught, and responded to in Georgia Tech classrooms. The 2026 Edition gathers 67 articles from faculty, staff, and researchers across every college at Georgia Tech, along with the Library, the Center for Teaching and Learning, the Georgia Tech Research Institute, the Office of Information Technology, and the Provost's Office.

Each article is a "play": a specific initiative carried out in a real course, documenting the prior context, the actions the instructor took, the results, and the lessons learned. The volume closes with 20 lessons synthesized across the full collection.



Front cover



Back cover

Copyright and License

Copyright for the content of this volume is retained by each section's author or authors. Copyright for sections not attributed to a specific author is retained by the editors.

ISBN 979-8-9978407-0-9. Edited by David A. Joyner and Nimisha Roy. https://hdl.handle.net/1853/81982
This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0). https://creativecommons.org/licenses/by-nc-sa/4.0/

Suggested Citation

Tatiana Rudchenko (2026). From Curiosity to Career Readiness: Student Perspectives on Integrating Generative AI into Quantitative Business Classes. In D. A. Joyner & N. Roy (Eds.), *Georgia Tech Academic AI Playbook* (2026 ed., pp. 123–127). Georgia Institute of Technology. https://hdl.handle.net/1853/81982

Title: From Curiosity to Career Readiness: Student Perspectives on Integrating Generative AI into Quantitative Business Classes

Authors:

- Tatiana Rudchenko; Scheller College of Business; tatianarudchenko@gatech.edu

Categorization: Teaching AI

Sub-Categorization: AI in Professional/Industry Practice

Formation

Generative artificial intelligence has rapidly become part of the business environment, changing how organizations analyze information, solve problems, and communicate with stakeholders. As employers increasingly expect graduates to work effectively with AI-enabled workflows, business schools face the challenge of preparing students to use these technologies thoughtfully while preserving strong analytical foundations. One of the most important questions in today's innovative pedagogy is how instructors can integrate generative AI into the classroom in ways that strengthen learning. Beginning in Spring 2024, generative AI was gradually incorporated in Management Statistics (MGT 2250) and later Quantitative Analysis for Business (MGT 2255) at the Georgia Institute of Technology. The implementation intentionally evolved over several semesters as AI technologies matured from ChatGPT, to BoodleBox, and later Microsoft Copilot. Student surveys were administered in this period to understand how perceptions, confidence, and educational outcomes changed in MGT 2250 and MGT 2255 as AI became a regular component of coursework. The instructional philosophy behind this initiative was that AI should complement, not replace traditional analytical tools such as Microsoft Excel. Students first developed proficiency in statistical concepts and Excel-based analyses before applying AI to interpret results, explain statistical reasoning, automate repetitive tasks, and communicate findings. This progression enabled students to strengthen quantitative reasoning while developing AI-literacy, prompt engineering skills, and critical evaluation of AI-generated outputs. The focus of this initiative was placed on ethical AI use, reflection, and responsible decision-making to prepare students for AI-driven business environments. The instructional design builds on our earlier work integrating generative AI into MGT 2250, Management Statistics and higher education pedagogy (Spezzo & Rudchenko, 2025; Williams & Rudchenko, 2026).

Action

The curriculum was redesigned using a three-step instructional model consisting of three components: Orientation, Practice, and Project. Students first participated in AI orientation sessions where prompt engineering, ethical AI use, and business applications were introduced. Each term, industry professionals from PricewaterhouseCoopers (PwC) demonstrated how generative AI continues to transform consulting, analytics and collaborative decision-making.

Guest speaker sessions incorporated into the course helped students connect classroom learning with real-world professional practice. Weekly coursework integrated generative AI into descriptive statistics,

hypothesis testing, and regression analysis, while maintaining Excel as the foundational analytical platform. Students used AI to explain concepts, verify solutions, generate alternative approaches, translate statistical analyses into actionable business insights, and reflect on the strengths and limitations of Excel and AI. The centerpiece of the initiative was a collaborative AI capstone project. Student teams analyzed authentic business cases using both Microsoft Excel and AI tools, developed custom AI chatbots, produced AI-generated videos, and evaluated AI-assisted analyses alongside traditional statistical methods. As the culminating activity, each student team delivered a formal in-class presentation showcasing its business analysis, custom AI chatbot, AI-generated video, and comparison of Excel- and AI-supported approaches. These presentations promoted communication, collaboration, and professional presentation skills and enabled students to learn from one another's diverse AI strategies and business recommendations. Reflection was one of the most important components of every assignment. Rather than simply generating answers, students evaluated the strengths and limitations of AI, compared AI outputs with Excel results, and considered how AI influenced their problem-solving processes and managerial recommendations. This reflection-centered approach encourages critical thinking, ethical awareness, and deeper conceptual understanding while reinforcing that AI functions best as a learning partner rather than a substitute for statistical knowledge. Through the AI team project, students developed workplace-relevant competencies including prompt engineering, AI-assisted problem solving, collaboration, project management, technical communication, and presentation skills. The implementation followed a replicable three-step "Orientation–Practice–Project" instructional model, in which students first learned responsible AI use, then applied AI to course assignments, and finally integrated AI into authentic business projects that compared traditional analytical methods with AI-assisted approaches. This framework can be adapted across disciplines to support AI literacy while reinforcing domain-specific knowledge.

Result

Student feedback was collected through end-of-semester surveys administered in the author's sections of MGT 2250 and MGT 2255 between Spring 2024 and Spring 2026. Across these sections, 653 students were enrolled, and 601 completed the surveys, yielding a 92% response rate. Building on our earlier studies describing the initial implementation and instructional framework (Spezzo & Rudchenko, 2025; Williams & Rudchenko, 2026), the present study reports longitudinal evidence from these survey responses collected across multiple semesters.

Early surveys indicated that many students initially viewed AI primarily as a convenient technology.

By later semesters, survey participants increasingly described AI as a learning tool that strengthened business analysis skills, enhanced quantitative reasoning, and prepared them for future employment.

Several recurring themes emerged from student responses. Students appreciated immediate explanations when they became confused during homework, valued opportunities to practice AI skills within authentic business scenarios, and recognized that experience with AI would likely benefit them during internships and future careers. One student wrote that classroom exposure "*gave me confidence to explore AI beyond school assignments because I now understand when it is actually useful*." Another reflected that "*working with both Excel and AI helped me focus less on finding answers and more on understanding why the answers made sense.*" These comments illustrate a progression toward deeper learning rather than simple task completion. Initial surveys following the Spring 2024 pilot showed strong student interest in expanding AI integration into future business courses. As the initiative progresses, participants increasingly reported that AI enhanced their understanding of course material, increased productivity, reduced anxiety associated with quantitative coursework, and strengthened confidence in applying

business analytics. Many students emphasized that comparing Excel with AI helped them appreciate the complementary strengths of both tools while encouraging verification of AI-generated results.

The Spring 2026 survey reinforced these observations. During that semester, the implementation of Microsoft Copilot in MGT 2250 A and B produced particularly strong results. Among 99 student respondents, 96% reported that integrating Microsoft Copilot into coursework motivated them to develop AI skills for business analytics, while 98% believed the experience better prepared them for internships and future careers. Students described AI as an always-available tutor that clarified difficult topics, improved homework and examination preparation, and increased confidence in learning different quantitative methods using emerging technologies. Importantly, students also recognized the importance of maintaining traditional analytical skills, reinforcing that AI should complement rather than replace foundational quantitative instruction. Students also consistently emphasized that AI was most valuable when combined with the instructor's guidance and structured course activities.

Across four semesters (Fall 2024-Spring 2026), survey findings consistently demonstrated positive educational outcomes associated with AI integration. Although the AI platform evolved from ChatGPT to Microsoft Copilot, student perceptions remained remarkably consistent. Approximately one-half to two-thirds of students reported that AI improved their understanding of course content, helped them prepare for examinations, and reduced anxiety associated with quantitative coursework. Most notably, between 94% and 98% of students reported that the experience better prepared them for internships and future careers. Participants also valued using AI collaboratively during in-class activities and team projects, as discussions with peers and instructor feedback helped them interpret AI-generated responses, compare alternative solutions, and deepen their statistical reasoning.

Table 1. Student-Reported Learning Outcomes Following Generative AI Integration (Fall 2024–Spring 2026)

Student-reported outcome	***Fall 2024***	***Spring 2025***	***Fall 2025***	***Spring 2026***
AI platform	*ChatGPT*	*ChatGPT*	*BoodleBox*	*Copilot*
Survey participants, N (response rate)	*205 (93%)*	*118 (93%)*	*198 (91%)*	*99 (92%)*
AI helped students better understand concepts	57%	69%	52%	52%
AI improved students' Excel skills	32%	49%	36%	44%
AI helped students prepare for exams	42%	56%	46%	47%
AI reduced course anxiety	52%	57%	54%	51%
AI better prepared students for internships and future careers	94%	97%	87%	98%

As shown in Table 1, student perceptions remained consistently positive throughout the four semesters despite the transition in classroom AI platforms from ChatGPT to BoodleBox and

subsequently to Microsoft Copilot. Approximately half of survey participants consistently reported that generative AI improved their understanding of statistical concepts, helped them prepare for examinations, strengthened their Excel skills, reduced anxiety associated with quantitative coursework. The most consistent finding was students' perception of career readiness. Across the four semesters, an average of 94% of students reported that integrating AI into coursework better prepared them for internships and future careers, with specific responses ranging from 87% to 98%. Student comments further illustrated these findings. Students emphasized that comparing AI-generated solutions with their own Excel analyses helped them focus on understanding the underlying statistical reasoning rather than simply obtaining correct answers. Overall, students viewed AI not as a substitute for learning but as a tool that deepened conceptual understanding and reinforced traditional quantitative skills.

Lessons

- **Lesson 1**. **Structured integration is more effective than isolated exposure.** Embedding AI into authentic statistical assignments, rather than teaching AI as a standalone topic, helped students understand how AI supports real business decision-making and increased engagement with quantitative analysis.
- **Lesson 2. Combining Excel with AI produced stronger learning outcomes than relying on either tool alone.** Excel provided transparency in statistical calculations, while AI enhanced interpretation, communication, and conceptual understanding. Comparing both approaches encouraged students to think critically about analytical methods and validate AI-generated outputs.
- **Lesson 3. Reflection transforms AI from a productivity tool into a learning tool.** Requiring students to evaluate AI's contributions, limitations, and ethical use fosters metacognition, promotes responsible AI use, and develops workplace-ready competencies. These findings suggest that thoughtfully designed AI integration can strengthen both technical skills and critical thinking while preparing business students for an increasingly AI-enabled workplace.
- **Lesson 4**. **Instructor-guided AI integration maximizes learning.** Generative AI was most effective when integrated into an instructor-guided learning environment rather than used independently. Students consistently reported that they learned best when AI activities were embedded within classroom instruction, collaborative team projects, and discussions with peers. Rather than replacing the instructor, AI extended learning by providing immediate feedback, personalized explanations, and opportunities for exploration, while the instructor provided structure, context, and critical evaluation. This combination helped students validate AI-generated outputs, connect quantitative concepts to authentic business scenarios, and build confidence in leveraging both Excel and AI for data-driven decision-making. For educators and higher education institutions, these findings suggest that the greatest educational value of generative AI lies not in automation but in thoughtfully designing learning experiences in which generative AI, faculty expertise, and peer collaboration complement one another.

Future research should investigate the long-term impact of AI-powered pedagogy on student learning, motivation, and professional development. Future studies should examine how AI-supported instruction influences students' understanding of difficult statistical concepts, interest in data-driven problem-solving and business analytics, critical thinking, reflective learning, collaboration, career readiness, and student well-being. Expanding this research across disciplines and institutions will provide valuable evidence for designing effective, human-centered AI learning environments in higher education. Future research should also examine how different generative AI platforms influence student learning outcomes and whether educational benefits remain consistent as AI technologies continue to evolve.

References

Spezzo, V. M. & Rudchenko, T. (2025). Leveraging ChatGPT for Personalized Learning: Innovations and Challenges in Higher Education Pedagogy. *2025 Distance Learning Administration Conference Proceedings.* https://dlajekyll.com/past-conferences

Williams, K. Z. & Rudchenko, T. (2026). Transformative teaching in management statistics: Integrating real-world experiences and artificial intelligence. *Decision Sciences Journal of Innovative Education, 24*, e70019. https://doi.org/10.1111/dsji.70019