IMBA 6061 Syllabus

Information Systems

Summer 2026

Instructor Information

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General Course Information

Description

This course explores how digital technologies are reshaping the foundations of business—from how firms operate internally to how they compete in the market. While the lessons apply broadly across the digital landscape, the course places special emphasis on Artificial Intelligence (AI), which is increasingly central to both operational efficiency and strategic innovation.

The course takes a blended approach, examining AI through both a managerial lens—understanding its strategic implications, organizational impact, and business value—and a technical lens, building practical familiarity with how core AI and data-driven technologies function. The goal is to equip students with the insight and hands-on experience needed to critically assess when and how to apply these technologies within their organizations.

Course Learning Outcomes

Upon successful completion of this course, students will be able to:

- Understand how digital transformation and AI are reshaping industries, competition, and customer expectations, and analyze how emerging technologies disrupt traditional business models.
- Apply strategic thinking and structured frameworks to evaluate the viability, scalability, and long-term advantage of digital and AI-driven innovation.
- Develop informed judgment on when and how to integrate AI into business operations, including where AI can enhance decision-making, automate processes, or create new value—and where it may not be appropriate.
- Build practical literacy in core AI and data concepts relevant to business leadership, including hands-on exposure to how data-driven models work and what it takes to implement them responsibly at scale.
- Recognize the organizational and technological challenges of leading AI-powered transformation, including legacy systems, cybersecurity risks, cultural resistance, and ethical concerns.

Required Course Materials

The course also uses cases, executive briefings, articles, and videos, all made available through Canvas. Students will use Orange, a free visual no-code data science platform, for the hands-on AI assignments; download instructions are provided on Canvas.

Grading Policy

Final grades are based on weighted course components as shown below. There is no final exam in this course.

Letter grade scale (with rounding to the nearest integer percent): A: 89.5–100% | B: 79.5–89.4% | C: 69.5–79.4% | D: 59.5–69.4% | F: below 59.5%. Consistent with Georgia Tech policy, final course grades are awarded on a scale of A–F with no +/- grades. The instructor may curve grades if the need arises.

Components

Course Component	Weight
Participation (individual)	10%
Case Report – Lemonade (individual)	15%
Semester Project – Individual Part	20%
Semester Project – Team Part	20%
Data Science & AI using Orange (individual)	25%
Building AI Agents with n8n (individual)	10%
Cybersecurity (individual)	10%
Total	**100%**

Description of Graded Components

Participation: A substantial portion of the value of this course accrues during class sessions. Students are expected to attend all sessions, prepare by completing assigned readings and videos, and contribute substantive, well-reasoned comments during in-class discussions and activities.

Case Report – Lemonade: An individual written analysis of the Lemonade insurance case, assessed on quality of argumentation (logical development, evidence, critical analysis) and clarity of organization (structure, headings, concise writing).

Semester Project – Individual Part: Each student completes an individual assignment exploring a specific AI-driven innovation and transformation. These individual contributions are later shared within the student's project team.

Semester Project – Team Part: Teams collaboratively review pooled individual work, select the most compelling innovation, and develop a cohesive analysis presented in class during the final in-person session, together with supporting documentation.

Data Science & AI using Orange (25%): A set of hands-on individual assignments using Orange—a visual, no-code data science platform—to explore data preparation, machine learning models (including decision trees and neural networks), and model evaluation. These assignments build practical literacy in how AI models are built and interpreted.

Cybersecurity & IT Infrastructure (10%): An individual assignment covering foundational security, risk, and infrastructure considerations for AI leaders, including data breaches, adversarial attacks, regulatory compliance, and hands-on experience with APIs as the integration layer of modern IT.

Course Policies

Attendance and Participation

Regular attendance and active participation are required and are counted in the final grade as described in the grading policy above. Students may have one unexcused absence with no penalty to their participation grade. If a student must miss a session due to illness, family emergencies, or similar circumstances, the student should notify the instructor in advance when possible. Behavior that signals lack of engagement with the class—such as extensive use of laptops or phones for non-class purposes, or entering and exiting the classroom during session—may reduce participation credit.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review Georgia Tech's Honor Code and the student Code of Conduct.

Any student suspected of cheating or plagiarism on an assignment, quiz, or exam will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. All submitted work must reflect the student's own thinking, decisions, and standards.

Collaboration, Group Work, and Use of Generative AI

Students are encouraged to use Generative AI tools (such as ChatGPT, Gemini, or Claude) as part of their work process in this course. However, all submitted work must reflect the student's own thinking, decisions, and standards. Students are fully responsible for the accuracy, quality, and originality of their submissions; for critically reviewing, editing, and refining any AI-assisted content; and for ensuring all insights and arguments are contextually appropriate and tailored to the assignment.

If Generative AI meaningfully contributed to a submission (for example, through drafting, summarizing, or outlining), students must briefly acknowledge this in a footnote or appendix, and must also complete the required Generative AI Disclosure Statement associated with the Semester Project. Generative AI should be used as a thinking partner, not a substitute for the student's own judgment or effort; submitting AI-generated work without proper review or customization may constitute academic misconduct.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your needs and to obtain an accommodations letter. Please also email me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Additional Criteria for Successful Completion

To successfully complete this course, students must earn a final weighted score of at least 59.5% across all course components and must complete each of the major graded components (Case Report, both parts of the Semester Project, the Data Science & AI using Orange assignments, and the Cybersecurity & IT Infrastructure assignment). The Semester Project team presentation is delivered during the final in-person class session; students are expected to attend in person to participate in their team's presentation.

Campus Resources for Students

Graduate Student Academic and Professional Success Resources

A list of resources for graduate students is available on the Office of Graduate and Postdoctoral Education website, including academic resources, student services, and professional development opportunities.

Student Well-Being

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A comprehensive list of wellness-related resources is maintained by the Office of the Vice President for Student Engagement and Well-being at students.gatech.edu/student-resource-guide.