MGT 6214 Syllabus

Business Analytics Practicum, 3 Credits
Fall 2026
Class Day and Time: Tuesdays, 6:30–9:30 PM

Instructor Information

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General Course Information

Description

The course pairs teams of Georgia Tech graduate students with participating companies and organizations for a semester-long, consulting-style analytics engagement. In the age of artificial intelligence, organizations increasingly need leaders who can move beyond technical experimentation and translate data, analytics, and AI-enabled tools into practical business value. This course is designed to prepare students for that role.

Student teams will work on real-world business analytics and AI-related projects identified through conversations with sponsoring organization representatives. Depending on sponsor needs and data availability, projects may involve predictive analytics, business intelligence, dashboard development, process analytics, customer or market insights, text analytics, generative AI applications, AI-enabled workflow automation, decision-support prototypes, or responsible AI implementation frameworks.

Throughout the semester, each team will frame its sponsor's business issue as an analytics or AI-enabled business problem, develop a structured project plan, analyze relevant data, generate business insights, and deliver practical recommendations. When appropriate, teams may also develop analytical models, dashboards, prototypes, implementation guides, or other supporting materials.

The course emphasizes the full analytics and AI project lifecycle: understanding the business context, clarifying the problem, evaluating data readiness, selecting appropriate analytical or AI-

enabled approaches, developing evidence-based insights, communicating findings, and translating results into actionable recommendations for a managerial audience. Students will practice working with sponsors, managing project expectations, collaborating in teams, and presenting analytics-driven and AI-informed insights with professionalism and business clarity.

Course Learning Outcomes

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

1. Break down and clarify an ambiguous business problem and translate it into a structured analytics or AI-enabled project.
2. Develop a project plan that connects business objectives, data requirements, analytical methods, AI-related opportunities, deliverables, and sponsor expectations.
3. Evaluate whether analytics, machine learning, generative AI, dashboarding, automation, or decision-support approach is appropriate for a given business problem.
4. Formulate reasoned hypotheses and compare alternative analytical or AI-enabled approaches.
5. Apply appropriate analytical methods, such as statistical analysis, data mining, machine learning, forecasting, optimization, text analytics, or AI-assisted workflow design, to real-world business data and sponsor contexts.
6. Use data visualization and structured storytelling to communicate analytical findings clearly and persuasively.
7. Develop practical, evidence-based business recommendations that account for implementation feasibility, organizational value, risks, and responsible AI considerations.
8. Work effectively in teams and manage professional communication with project sponsors.
9. Deliver polished presentations, reports, models, dashboards, prototypes, or implementation guides appropriate for a business audience.

AI-Related Project Opportunities

Projects in this course may include traditional business analytics projects, AI-enabled analytics projects, or a combination of both. Examples of possible project directions include:

- Predictive analytics for business decision-making
- Customer, market, operational, financial, or workforce analytics
- Business intelligence and dashboard development
- Text analytics, sentiment analysis, or document intelligence
- Generative AI use cases for business processes

- AI-assisted workflow automation
- Agentic AI concepts and decision-support prototypes
- Data readiness and AI implementation assessment
- Responsible AI, governance, risk, and adoption frameworks
- Analytics strategy and implementation roadmaps

The purpose of these projects is not to use AI for its own sake. The purpose is to evaluate how analytics and AI can create measurable business value when applied thoughtfully, responsibly, and with attention to organizational context.

Information Security, Proprietary Information, NDAs, and Professional Conduct

As part of this practicum course, students may work on current, real-world projects with company or organizational sponsors. To provide meaningful and educational project experiences, sponsors may share sensitive data, proprietary information, trade secrets, business processes, or other confidential materials.

To protect this information, students may be asked to sign a Non-Disclosure Agreement, Proprietary Information Agreement, or similar agreement. Students are expected to protect sponsor-provided information that is marked or reasonably understood as confidential. Students may not share confidential information, sponsor data, or project work outside the class or beyond the class purpose without the sponsor's express written permission.

Students must not upload confidential sponsor data, proprietary information, or restricted project materials into external AI tools unless explicitly authorized by the sponsor and instructor. This includes, but is not limited to, generative AI systems, code assistants, automated document analysis tools, public model APIs, or third-party platforms that may retain or process submitted content outside the sponsor-approved environment.

Within appropriate limits, students may discuss their project experience in campus recruiting interviews or professional conversations, provided that confidential information is de-identified and specific sponsor data, business problems, and proprietary solutions are reasonably obscured or omitted.

These agreements are common in industry and academia. Students will have an opportunity to ask questions before signing any required agreement. If a student does not wish to participate in a project requiring such an agreement, the student should speak with the instructor as early as possible to determine whether an alternative project assignment is available.

All course activities are governed by Georgia Tech's Student Code of Conduct and the Georgia Tech Honor Code.

Key Milestones

Once teams are assigned to projects, students will work on them throughout the semester. Major milestones may include:

- Course introduction and sponsor project presentations
- Team assignments and sponsor pairings
- First presentation: problem framing, data understanding, and exploratory analysis
- Second presentation: initial models, prototypes, dashboards, or emerging insights
- Final sponsor presentations
- Final presentation materials and supporting deliverables

Specific dates, times, submission requirements, and presentation expectations will be posted on Canvas.

Grading Policy

Students will be evaluated throughout the semester based on the quality of their project progress, sponsor engagement, milestone presentations, final deliverables, and professional teamwork.

Graded Component	Weight
Weekly Reports and Regular Sponsor Check-ins	20%
First Presentation and Report	20%
Second Presentation and Report	20%
Final Presentation and Report	40%
Total	**100%**

Rounding and Letter Grade Scale

Final percentage points will be rounded to the nearest whole number. For example, 89.6% rounds to 90%, while 89.4% rounds to 89%.

Georgia Tech awards final letter grades on an A–F scale without plus/minus grades. The expected conversion of percentage scores to letter grades is as follows:

Letter Grade	Percentage Range
A	90–100
B	80–89
C	70–79
D	60–69
F	Below 60

Course Structure

The course will include a combination of in-person sessions, online meetings, teamwork time, and sponsor check-ins. Selected class sessions will be reserved for project milestones, including progress presentations and final sponsor presentations. Other sessions may be used for tutorials, project workshops, team consultations, or sponsor meetings.

Students are expected to participate actively in team meetings, sponsor communications, class sessions, and all required project milestones.

Weekly Progress Reports and Meetings

Each team will submit regular progress reports and participate in sponsor or instructor check-ins as required. These reports and meetings are intended to help teams document progress, identify challenges, receive feedback, and maintain alignment with sponsor expectations.

Progress reports should be professional, concise, and specific. They should summarize completed work, current challenges, next steps, and any questions requiring sponsor or instructor input. For AI-related projects, teams should also document key assumptions, data limitations, model or tool limitations, and any responsible AI or confidentiality considerations.

Final Report and Deliverables

The final deliverables will be determined based on the project scope and sponsor needs. Deliverables may include a final presentation deck, written report, analytical model, dashboard, prototype, code, technical appendix, implementation guide, AI-readiness assessment, or other supporting materials.

The final presentation deck should be prepared so that it can stand on its own as a professional report of the team's work, findings, and recommendations. This is important because sponsor representatives may circulate the materials internally within their organizations.

Teams may also be expected to submit supporting files, such as R or Python code, dashboard files, data documentation, model documentation, prompt/workflow documentation, or other project artifacts, as appropriate.

Peer Evaluations

Students will complete peer evaluations during the semester. Peer evaluations should provide constructive, professional feedback about team members' contributions, communication, reliability, and collaboration.

The final peer evaluation may be used by the instructor to determine whether each student should receive full credit for the team project. If a pattern of limited contribution is documented, the instructor may reduce an individual student's project grade. In serious cases, this reduction may include receiving little or no credit for the project component.

Course Policies

Attendance and/or Participation

Students are expected to fully participate in the class. If you must be absent for valid reasons, such as an emergency, you must notify the instructor as early as possible. Examples of these valid reasons include participation in official Institute activities such as an athletic event as a member of the team or staff or representing the Institute as part of a competition or conference, or mandatory military deployment. Absences for any sincerely held religious belief, observance, or practice will be accommodated where reasonable. If you miss points for some activity on a given day, it is up to you to not to miss other opportunities to earn points.

Students are expected to devote at least 10 hours per week to completing the course requirements. Of course, students can spend as much time as necessary, but it is important to avoid falling behind.

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 a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodation 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 special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible 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.

Collaboration, Group Work, and Use of Generative AI

You are encouraged to discuss assignments, and course materials with your peers. However, all work that you submit must be written independently and reflect your own understanding. The use of generative AI tools (e.g., ChatGPT) is permitted to support your work on assignments. However, you are expected to critically evaluate and verify any AI generated content, and you must be able to clearly understand, explain, and defend all material included in your submissions.

Campus Resources for Students

Student Academic Success Resources:

A list of resources for undergraduate students' academic success and information about advising can be found at Success at Tech

- Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental wellbeing. A comprehensive list of wellness related resources has been compiled and maintained by the Office

of the Vice President for Student Engagement and Well-being (student-resource-guide (gatech.edu).