

# MOT 6115

## AI & Machine Learning for Business

Fall 2026

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### General Course Information

#### Description

In today's era of rapid digital disruption and data-driven strategy, the ability to understand and apply Artificial Intelligence (AI) and Machine Learning (ML) has become a vital leadership skill. This course equips EMBA students with a foundational understanding of AI and ML concepts and hands-on experience applying these concepts using the Orange data mining platform.

Following a data mining approach, students explore how machine learning can enhance decision-making in real-world business contexts. The course covers core data mining techniques—including classification, clustering, association rules, and neural networks—through practical exercises and real-world examples. Students also explore the emerging domain of agentic AI systems—autonomous software agents capable of planning, acting, and adapting in pursuit of high-level goals.

Throughout the course, students develop data-analytic thinking: the ability to frame business problems, choose appropriate techniques, interpret results, and apply AI solutions with strategic intent and sound judgment.

#### Course Learning Outcomes

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

1. Explain the foundational concepts of AI and machine learning and their relevance to modern business strategy and decision-making.
2. Apply key data mining techniques—including classification, clustering, association rule mining, and neural networks—to analyze business data using the Orange platform.
3. Frame business problems as data mining tasks, selecting appropriate techniques and workflows to address specific analytical questions.
4. Demonstrate data-analytic thinking, integrating technical results with business context to communicate findings and support strategic recommendations.
5. Identify emerging trends in AI and their implications for business, including the growing role of autonomous agents and other innovations shaping the future of intelligent technologies.

## Required Course Materials

This course uses executive briefings and readings, which will be available on Canvas. Instructions on how to install and use the Orange data platform will also be posted on Canvas. There is no required textbook.

## Grading Policy

Final grades will be determined based on the following weighted components. There is no final exam. All work is individual, except the Team Project.

Component	Weight
Participation	10%
Team Project	25%
Introduction to Data Science with Orange	5%
AI using Orange: Decision Trees	15%
AI using Orange: Association Rules	10%
AI using Orange: Clustering	10%
AI using Orange: Neural Networks	15%
AI Agents using n8n	10%

## Letter Grade Determination

Final percentage points will be rounded to the closest integer percent (e.g., 89.6% = 90%, 89.4% = 89%). The instructor may curve grades if the need arises.

Letter Grade	Percentage Range
A	89.5% – 100.0%
B	79.5% – 89.4%
C	69.5% – 79.4%
D	59.5% – 69.4%
F	0% – 59.4%

## Description of Graded Components

### Team Project

Each team will explore a provided dataset, formulate a business question, and apply machine learning techniques using Orange to uncover insights. The project culminates in a final presentation. Peer evaluations will be factored into the final Team Project grade.

## **Data Science & AI Using Orange**

A series of five assignments provides hands-on experience with foundational AI tools and techniques using the Orange no-code platform. Topics include data preparation, decision trees, association rules, clustering, and neural networks. These assignments build practical literacy in AI and directly support the Team Project.

## **AI Agents Using n8n**

Students gain hands-on experience with agentic AI using n8n, a no-code automation tool, designing and prototyping AI-driven workflows that simulate how autonomous agents operate in real-world business settings.

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## **Course Policies**

### **Attendance and/or Participation**

Attendance at all classroom sessions is expected. Students may have one unexcused absence with no penalty to their participation grade. If you need to miss a session due to illness, family constraints, or other extenuating circumstances, please notify the instructor in advance. Students should prepare for sessions by completing assigned readings and watching any assigned videos, participate actively in discussions and in-class activities, and avoid behavior that signals disengagement (e.g., extensive use of laptops or phones for non-class purposes).

### **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.

### **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 special needs and to obtain an accommodations letter. Please also e-mail 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.

### **Collaboration, Group Work, and Use of Generative AI**

Students are encouraged to use Generative AI tools (e.g., ChatGPT, Gemini, Claude) as part of their work process. 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; critically reviewing, editing, and refining any AI-assisted content; and ensuring all insights and arguments are contextually appropriate. If GenAI meaningfully contributed to submitted work, students should briefly acknowledge this in a footnote or appendix. Submitting AI-generated work without proper review or customization may constitute academic misconduct.

### **Extensions, Late Assignments, and Missed Work**

All work is to be submitted via Canvas by the published due dates. Students who anticipate difficulty meeting a deadline should contact the instructor in advance. Exceptions may be made for illness, approved Institute activities, or religious observances, in accordance with Georgia Tech policy.

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## **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](https://students.gatech.edu/student-resource-guide).