

**MGT 6501 - MBA: Operations Management
Fall 2026 Syllabus (tentative)**

Instructor: Dr. Morvarid Rahmani (morvarid.rahmani@scheller.gatech.edu)

Days and Time: Tuesday and Thursdays, 12:30-1:45 and 2:00-3:15 in Room TBD

Office Hours: By appointments on Teams

Teaching assistant: TBD

COURSE DESCRIPTION

This course introduces you to the strategic and operating issues and decisions involved in managing the business and operational processes within an enterprise. Operations management consists of business functions that guide and control value-adding transformation processes in which resources are transformed into goods or services. Operations management tools help business organizations improve their transformation processes in order to better match supply with demand and gain a competitive advantage.

The course aims to provide you with a conceptual framework and a set of analytical tools to enable you to better understand why processes behave as they do. Given this understanding, you will be positioned to involve yourself in an organization's defining strategic decisions: those relating to key processes affecting your, and your organizational unit's performance. Further, you will be able to articulate the set of processes that most closely match and enhance your organization's competitive posture.

With only seven weeks in this course, it is obvious that you are not going to become an expert in operations management (and we don't intend that you do). Rather, the course is designed to introduce you to what every general manager or consultant should know about the field. Therefore, an important goal of this course is that you understand the fundamental concepts, opportunities and challenges in the area so that, as a manager or consultant, you can act wisely and to the best advantage.

This course discusses a wide range of Operations Management concepts, such as operations strategy, process analysis, service management, supply chain management, inventory planning, and environmental/social sustainability. The course comprises instructional lectures and case/reading discussions. Additional readings from the Wall Street Journal and other sources will be used to supplement the textbook.

Learning Objectives:

Upon successful completion of this course you should be able to

- Connect the operations concepts taught in the course to real industry situations.
- Map, analyze, and identify opportunities to improve service and manufacturing processes.
- Apply managerial principles and analytic methods to manage variability in processes.
- Identify opportunities and apply operational tools to improve supply chain coordination.
- Understand and apply sustainable practices in operations management.

Required Text:

The Goal (any edition) by Eliyahu M. Goldratt & Jeff Cox, North River Press.

Optional Reference Text:

Matching Supply with Demand: An Introduction to Operations Management (3rd Edition, 2013), by Gérard Cachon & Christian Terwiesch, McGraw-Hill/Irwin (ISBN: 978-0-07-352520-4).

Other Required Materials:

- Cases and Simulation to be purchased from Harvard Business Publishing. Please see the link posted on canvas.
- Additional course materials are posted on Canvas. Locate the course by logging in at <https://canvas.gatech.edu/>

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| GRADING |
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We shall try to assess your understanding of the tools and concepts covered, your ability to integrate and apply those concepts, and your contribution to the learning experience of the class. To do this, we shall weigh these various activities in the following manner.

| | | |
|---------------------|-----|--------------|
| 1. 4 Quizzes | 30% | (individual) |
| 2. Assignments | 20% | (individual) |
| 3. 1 Case Write-up | 10% | (group) |
| 4. Class Attendance | 10% | (individual) |
| 5. Final Project | 30% | (individual) |

The grading scheme for this course is as follows: A = 90-100; B = 80-89.99; C = 70-79.99. Please make re-grading requests for an evaluation component within one week of your receipt of the evaluation.

Assignment submissions will be handled on Canvas. Therefore, late submissions will not be possible. For group assignments, if need arises, I will request you to assess the contribution of each member of your study group, including yourself.

1. Quizzes (30%)

There will be four quizzes to help you check your understanding of the material covered. The quizzes are handled on Canvas, administered in the classroom and are closed books and closed notes. You will need a calculator for the exam; use of cellphones and tablets are not permitted during the exam at any time. You may use one two-sided (8 ½ x 11 inches) original hand-written or typed note and formula sheet to each exam. It is important to prepare and review materials before taking each quiz. The lowest quiz score will be dropped from the calculation.

2. Assignments (20%)

We will have several reading assignments on Canvas. Please thoroughly review readings and respond to specific questions prior to their discussion in class. It is required that each of you individually respond to all questions posted and by the due date. You can work on questions in groups, but should submit your answers individually. You may be called on during our sessions to explain and defend the responses you submit. One reading assignment will be dropped from the calculation.

3. Group Case Write-Up (10%)

Groups should submit a written analysis of one case marked with a (*) in the course plan. The case write-ups are due on November 19, the day before the case is scheduled for class discussion. Your group's grade for the case write-up will be based on the quality and depth of analysis and the soundness of recommendations made. Please submit your group's case write-up as a single PDF file of around five pages.

4. Class Attendance (10%)

Please arrange your other activities to permit you to attend class. Please always occupy the same position in the classroom (to the extent feasible) and always place your name card/tent in front of you. If you cannot come to a class, you should seek assistance from your classmates to gain a firm grasp of the missed class contents. For each absence beyond and including the third session missed, two points will be deducted from your course grade (excused absences beyond two sessions, e.g., health reasons, must be documented.)

5. Final Project (30%)

Students will complete a team-based project in which they design and analyze an operations system using concepts from the course and AI-based tools. Each team will select an operations problem (e.g., process design, inventory management, or supply chain coordination) and develop a structured solution that includes clear problem framing, system design, and quantitative analysis. AI tools should be used to support idea generation, modeling, and scenario analysis; however, students are expected to critically evaluate and validate all outputs. Deliverables include a written report and a class presentation. Projects will be evaluated based on the rigor of analysis, application of course concepts, effective and thoughtful use of AI, and clarity of communication.

ACADEMIC INTEGRITY

Georgia Tech Honor Code: Students are expected to act and must expect their peers to act according to the school's ethics code. See www.honor.gatech.edu. As a general rule, you are not allowed to use any material from previous years or from people that have taken a related class elsewhere. In case of any doubts, please ask the instructor first. The marking of attendance for anyone other than the person himself/herself constitutes a significant violation of the instructor's and your colleagues' trust and also the honor code.

CAMPUS RESOURCES

I recognize that events occurring in the world may impact you on a number of levels, and you may find yourself in need of support. Below are some resources to support you both as a student and as a person.

- The Office of the Dean of Students: <http://studentlife.gatech.edu/content/services>; 404-894-6367. You also may request assistance at https://gatech-advocate.symplcity.com/care_report/index.php/pid383662?
- Counseling Center: <http://counseling.gatech.edu>; 404-894-2575. *Students in crisis may contact the counselor on call after hours at 404-894-2204.*
- The Office of Disability Services: 404-894-2563 or dsinfo@gatech.edu or <http://disabilityservices.gatech.edu>
- Students' Temporary Assistance and Resources (STAR): <http://studentlife.gatech.edu/content/need-help>
- Stamps Health Services: <https://health.gatech.edu>; 404-894-1420
- OMED: Educational Services: <http://www.omed.gatech.edu>
- Belonging and Student Support: <https://belonging.gatech.edu/studentssupport>; 404-385-2679
- Veteran's Resource Center: <http://veterans.gatech.edu/>; 404-385-2067
- Georgia Tech Police; 404-894-2500

COURSE OVERVIEW

| Week | Topic | Case Study | Quiz |
|-------------|--|---------------------|---------|
| | Introduction | | |
| Weeks 1 & 2 | Strategic role of OM | | |
| | Process View | | |
| Week 3 | Process analysis | | |
| | Little's law | Kristen's Cookie | Quiz #1 |
| Week 4 | Forecasting | | |
| | Inventory Management | | |
| Week 5 | Safety Stock & Risk Pooling | | Quiz #2 |
| | Newsvendor model | HP Deskjet | |
| Week 6 | Supply chain Management | *Sport Obermeyer | |
| | Supply Chain Simulation | Root Beer Game | Quiz #3 |
| Week 7 | Revenue Management | | |
| | Quality Management and Creating impact | | Quiz #4 |
| Finals | Project Submission | | |

*** Sport Obermeyer Case Questions:**

- Briefly describe four distinct operations-related challenges faced by Sport Obermeyer. Also briefly comment on how these challenges relate to Obermeyer's competitive priorities.
- Help Wally make his immediate decision on production quantities ahead of the Las Vegas show.
- Explain four prioritized recommendations to Wally that would help address the challenges identified in first question.