

**MGT 3501 - UG: Operations Management
GT-E Summer 2025 Syllabus (tentative)**

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

Days and Time: Tuesdays and Thursdays 1:30-3:25pm in GT-E Building

Office Hours: By appointments

Pre-requisites: MGT 2250

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 organizations improve their transformation processes in order to better match supply with demand and gain a competitive advantage.

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 operations, supply chain management, inventory planning, sustainable operations, and quality management. In such a course, it should be recognized that breadth of subject matter, not depth of topic, is the goal.

Learning Objectives:

Upon successful completion of this course you should be able to

- Connect the operations concepts to real industry situations.
- Map, analyze, and identify opportunities to improve service and manufacturing 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:

- All course materials will be posted on Canvas. Locate the course by logging in at <https://canvas.gatech.edu/>.
- All messages will be sent out via Canvas. Please make sure you are checking all messages and taking the appropriate actions.

GRADING

The final grade for this course will be based on your performance on assignments, exams, and a final write-up. We shall weigh these various activities in the following manner.

- | | | |
|------------------------|-----|--------------|
| 1. Assignments | 30% | (individual) |
| 2. Exams | 40% | (individual) |
| 3. Insight activities | 10% | (individual) |
| 4. Attendance | 10% | (individual) |
| 5. Personal Reflection | 10% | (individual) |

The grading scheme for this course is as follows: A = 90-100; B = 80-89.99; C = 70-79.99; D=60-69.99; and F=below 59.9. Final cumulated scores of the class will be analyzed to determine if an adjustment or curve is necessary. However, a curve will only help you. Therefore, if you have a 90% or more you will get an A in the class. I won't curve to raise the minimum requirements for grades, only lower them if necessary. Please make re-grading requests for an evaluation component within one week of your receipt of the evaluation.

1. Assignments (30%)

There will be short assignments on Canvas throughout the semester. These can be based on assigned readings or concept covered in class. The goal of these assignments is to help you actively process the class materials and maximize learning. Assignment submissions will be handled on Canvas. Therefore, late submissions will not be possible. Makeup assignments will not be given. However, one lowest score will be dropped from the final grade calculation.

2. Exams (40%)

There will be two exams that will each count towards 20% of your final grade. The exams will evaluate your mastery of basic concepts covered in the course. The exams are closed book, closed notes, and exclusively individual efforts. 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. Sharing of course materials and notes is not allowed during the exam. The exams will be administered on Canvas. Makeup exams will not be given (excused exam absences e.g., health reasons, must be documented).

3. Insight Activities (10%)

There will be several engagement activity assignments to help you better understand the context and relate it to real-world situations. Insight activity submissions will be handled through Canvas, and late submissions will not be accepted. However, one lowest score will be dropped from the final grade calculation.

4. 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. Two absences are allowed. Excused absences beyond two sessions, e.g., health reasons, must be documented.

5. Personal Reflection (10%)

For this assignment, you should submit a 2-page memo (approximately 800-1000 words) describing in detail how one of the concepts from this course can help you in your current or future job. Please refer to the rubric posted on Canvas. All personal reflections will be shared with the class in a folder on Canvas, so please keep this in mind when writing your reflections.

6. CIOS Incentive (Extra 2 point)

If at least 85% of the class respond to the anonymous CIOS survey at the end of the semester, the whole class will receive extra 2 points for the final grade.

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.

Diversity and Inclusion: Diversity is a resource, strength, and benefit. As the instructor of this class, I am strongly committed to creating an inclusive, welcoming, and fair learning environment. I respect the diverse views represented by all of you in this class and expect you to do the same. Every student, regardless of personal history, background, or identity category, is a valued member in my classroom. Your experiences and ideas are valuable and important, and you can share them freely and respectfully as they become relevant to our class.

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.symplicity.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>
- Women's Resource Center: <http://www.womenscenter.gatech.edu>; 404-385-0230
- LGBTQIA Resource Center: <http://lgbtqia.gatech.edu/>; 404-385-2679
- Veteran's Resource Center: <http://veterans.gatech.edu/>; 404-385-2067
- Georgia Tech Police; 404-894-2500

COURSE OVERVIEW

We present the tentative course schedule below. This is an approximate schedule, and the pacing may vary during the term. In general, even if the specific date of coverage may change slightly, the order of coverage should remain as presented below. Modifications may be made as the semester progresses and the appropriate changes will be announced on Canvas.

Week	Dates	Tentative Topic	Note
1	05/12-05/16	Course Introduction and Overview	Due: Insight Activity (a)
2	05/19-05/23	Operations Strategy	Due: Insight Activity (b)
3	05/26-05/30	Process View and Analysis	Due: Assignment #1
4	06/02-06/06	Little's Law and Variability	Due: Assignment #2
5	06/09-06/13	Review and Exam #1 on Weeks 1 to 5	In-class. Please bring your laptops.
6	06/16-06/20	Inventory Management	Due: Assignment #3 & Insight Activity (c)
7	06/23-06/27	Safety Stock and Risk Pooling	Due: Assignment #4
8	06/30-07/04	Newsvendor Model	Due: Assignment #5 and Course Survey
9	07/07-07/11	Supply Chain Management	Due: Insight Activity (d)
10	07/14-07/18	Supply Chain Coordination	Due: Assignment #6
11	07/21-07/25	Revenue Management	Due: Assignment #7 & Insight Activity (e)
12	07/28-07/31	Exam #2 on Weeks 6 to 11	In-class. Please bring your laptops