

ISYE 6380 Production Planning and Control

Summer 2026

Instructor Information

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General Course Information

Catalog Description

Fundamentals of Production Planning and Lean Manufacturing

Course Learning Objectives

The primary objective of this course is to gain a quantitative and intuitive understanding of a set of modeling and analysis skills for managing and designing production systems. Particular emphasis will be given to the following topics: aggregate production planning, materials requirement planning, deterministic and stochastic inventory control policies, basic factory dynamics, influence of variability on performance, push vs. pull production control, and operations scheduling.

Texts

Required texts: There is no required textbook for the course.

Recommended Textbooks:

- *Production and Operations Analysis (POA)* by S. Nahmias (2008 is 6th edition; other editions may work)
- *Factory Physics (FP): Foundations of Manufacturing Management*, by Hopp and Spearman, 3rd Edition, Waveland Press, Inc.

Canvas

All class-related materials are posted there. Students are responsible for all announcements and changes in the schedule that are posted on Canvas or sent via email.

Office Hours

Students are encouraged to post questions to the course message board and contribute to the discussions. The professors will hold office hours via Zoom on the days written on the schedule posted on Canvas unless otherwise announced. Students may also email the professor of the lesson if they have questions or if they want to make an appointment; the email should include “6380” in the subject line.

Grading Policy

Assessments	70%
Games	22%
Case study	8%

TOTAL	100%

Assessments (70%): Depending on the lesson, there will be a different type of assessment that can range from participating in the exercises or discussions embedded in the video lessons to taking a multi-lesson long assessment that covers concepts from multiple lessons; the points associated with each assessment will be proportional to the effort required to complete it. All assessments for a week will be due by a specified time on Monday of the following week.

Games (22%): Two games will be required, and each may involve some assignments related to it and a final report to be turned in by the deadline indicated on the course website. Details of the games and the deliverables will be discussed on the course website.

Case Study (8%): One case study will be required, which will involve a final report to be turned in by the deadline indicated on the course website. Details of the case study and the deliverables will be discussed on the course website. Compared to the assessments, case studies generally take a bit longer to complete; therefore, it is advised that you take this into account while planning for the week.

Incomplete Grade: An “I” will be granted only if a passing grade has been maintained, 70% of the course work is completed, and there is a documented family or medical emergency from the Dean of Students.

Course Policies

Attendance Policy: This course is asynchronous, students will be watch and read the required material. Office hours are strongly encouraged as the instructors will be addressing the class material and questions at that time.

Re-grading Policy: No re-grade will be accepted more than one week after a work product has been returned to the student. Write an email explaining which assessment and which part you want re-graded and why. You will be given one chance to request a re-grade for each work product.

Missed Deadlines: No makeup assessments will be given under any circumstances! If you miss a deadline, you will receive a grade of “0” for that assessment unless you have a Georgia Tech-approved excuse. Examples of these include doctor’s documentation of significant illness (e.g., requiring hospitalization) or

death in the family (the Dean of Student's Office has a process to verify the information and send it to all your professors).

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](#). Academic dishonesty will not be tolerated in this course. Any assistance on an assessment or case study report from any source besides yourself must be referenced in your report.

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

- In regards to assessments, all work is to be done on an individual basis. You may not discuss or exchange information on assessment questions with others either in or outside of this class.
- Changing your answer on graded work is also disallowed and is a violation of the Honor Code. Failure to adhere to any of these requirements constitutes a violation of the Honor Code; other situations are also at the discretion of the instructor

To protect the honest majority, cheating of any kind, big or small, will be penalized by an "F" in the assignment/exam/project in which the incident happened, and the student will be referred to the Dean of Students for disciplinary action. If there is any question as to whether an activity is or is not permissible (in this class) under the Honor Code, consult the professor prior to undertaking the activity.

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.