ISYE 3103 Supply Chain Modeling: Logistics

Supply Chain Modeling: Logistics

Section RES

CRN: 54109

Summer 2026

Instructor Information

Instructor: TBA

Email: TBA

General Course Information

Catalog Description:

Course focuses on engineering design concepts and optimization models for logistics decision making in three modules: supply chain design, planning and execution, and transportation.

Course Description:

This course will teach the student how to successfully complete an engineering design or planning project in order to prepare the student for his capstone design project and for design and planning projects in industry. The target area is the design of industrial logistics systems. Important areas within industrial logistics are transportation, inventory in the supply chain, supply chain network configuration, and integrated supply chains.

Course Learning Outcomes

At the end of this course, students will be able to:

1. Structure industrial logistics problems by identifying the objectives, constraints, and decisions variables
2. Design and plan logistic systems by applying the engineering design method
3. Identify major classes of industrial logistics systems and operations and recognize their most significant characteristics
4. Model the basic variants of industrial logistics problems and solve them with basic solution algorithms

Required Course Materials

1. Course note set.
2. Goetschalckx, M., (2011), Supply Chain Engineering, Springer, New York, New York.
3. Ghiani, G., Laprote, G., and Musmanno, R (2022), Introduction to Logistics Systems Management: With Microsoft Excel and Python Examples (Wiley Series in Operations Research and Management Science, 3rd Edition)

Grading Policy:

TBA

[Specify how final grades will be determined, including weighting scales or points assigned to various course requirements. Your grading process and scoring methods should be clearly stated, allowing students to reasonably predict progress towards their final grade throughout the semester. Finally, you should define your approach to calculating course grades, including how assignments and exams are weighted, so that students can clearly see the ways in which their work and grades earned along the way will contribute to their final grade in the course. (See Georgia Tech Regulation V.A Grades)]

Assignments

TBA

- Assignment 1, percentage/points towards grade
- Assignment 2, percentage/points towards grade
- Etc…

Description of Graded Components

TBA

Your text here.

[Your syllabus should include extra details and information for each component of your students' final grade. The idea here is to give your students a sense of what kind and quantity of work will be expected of them. Some things can be lumped together (e.g., midterms & final exams), but there should be a descriptive blurb associated with every component of your course that counts toward a student's final grade.]

[At Georgia Tech, final course grades are awarded on a scale of A-F with no +/- grades permitted]

Course Policies

USG Required Course Policies [remove this heading in your final syllabus]

Attendance and/or Participation

TBA

Your text here.

[Whether attendance and/or participation are required and/or graded in your class is up to you – and your position on this is an important course design consideration. However, there are several questions worth thinking about as you make that decision, and as you articulate your policy for your syllabus. In particular, if a student skips every class but achieves an A in the course, will you be satisfied that they took part in the full learning experience? In addition, how will student absences affect the learning experience of other students in your course, and what resources do you have at your disposal for tracking and/or grading attendance and/or participation? If a student must miss class because of illness, how will they catch up on what they miss?

Review Institute expectations and restrictions related to attendance, including information about excused absences. Instructors are also encouraged to consider the impact of events like the All-Majors Career Fair and off-campus interviews.]

[The policies below include template text that you may copy and paste into your syllabus]

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.

Core IMPACTS

Core IMPACTS is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated career competencies. This resource developed by the Center for Excellence in Teaching and Learning and Online Education at

Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

Additional Georgia Tech Required Policies [Remove this heading in your final syllabus]

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.

Optional Course Expectations, Policies, and Resources [Remove this heading in your final syllabus and eliminate the separation between the required and optional policies]

[While the following policies are not required, they include important expectations and resources that you may choose to share with your students. Visit our Course Policies page to find more sample policies, information about Georgia Tech specific rules and regulations, and suggestions for what to consider when setting each policy.

As you write this portion of your syllabus, use language that emphasizes your students' role in the process, and aim for a tone that communicates both authority and approachability. Each policy should make it clear what is and is not expected/permissible in this class, what the rationale or motivation behind the policy is, what students need to do in extenuating circumstances, and what the consequences will be if they fail to live up to the expectations laid out in the policy. Finally, your policy should represent something that you are comfortable implementing consistently throughout the course.]

Pre- &/or Co-Requisites

[If applicable, list pre-requisites here. In some instances, you may also want to describe the background knowledge/experience that is most likely to lead to success in your course (this is often relevant in a graduate level seminar and upper-level elective courses).]

Extra Credit Opportunities

[If applicable, include a statement about opportunities for extra credit here. Views on extra credit opportunities vary among faculty. You might decide not to offer extra credit opportunities because you want your students to work hard in class and spend time working on actual assignments, or because you think extra credit lowers academic standards. However, extra credit can also be a good learning opportunity because it gives students an additional chance to learn the material (especially students who are struggling in the course). It also reduces student anxiety and builds their motivation and confidence.]

Collaboration, Group Work, and Use of Generative AI

[The university's Honor Code gives you the job of defining for your students the levels of collaboration that are permitted, as well what outside resources they are permitted to use (on assignments, exams, projects, etc.), and how they are supposed to report their use of those outside resources. You may also choose whether or not and to what extent students may collaborate with Generative AI in their course work. CTL provides guidance and some

adaptable template syllabus statements for use of GenAI in this web resource on Establishing Course Policies. Articulate your policy here.]

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

[Students need to know what your policy is on things like late assignments and missed exams. You should be as clear as possible about your rules and the consequences for your students if they do not follow them. You want to help students focus their efforts appropriately and make it easy for you to be consistent throughout the course. Note also that, at Georgia Tech, some exceptions are made for "approved Institute activities" (e.g., field trips and athletic events) and religious observances. Read more about approved exceptions. Note also that instructors are encouraged to consider the impact of events like the All-Majors Career Fair and off-campus interviews, and to plan accordingly.]

Inclement Weather and Digital Learning Days

[If a weather-related event affects campus operations, instructors have the discretion to cancel class or pivot to digital instruction. Informed by departmental and/or program considerations, you may choose to include language here that proactively instructs students what they should expect in such an event. Read more about the policy regarding the requirements, procedures, and responsibilities related to Digital Learning Days for Modified Campus Operations. Explore the Digital Learning Day Toolkit to learn more about guidance and tools that will make pivoting to digital learning easier.]

Student Use of Mobile Devices in the Classroom

[To set this policy, think about individual students, the overall dynamic you would like to see at work in your classroom, and your own tolerance of distractions in the classroom. See our Course Policies page for more information about factors to consider when it comes to setting your policy for the use of mobile devices in your classroom.]

Additional Course Policies

[There are a variety of additional policies you might include in your in your syllabus, depending on your specific context and approach to your course. For example, many instructors include at least one of the following policies explicitly on their syllabus (View additional course policy examples):

- *Remote proctoring*
- *Accommodations for religious observances*
- *Food and drink in the classroom*
- *Freedom of expression and guidelines for discussion*

- *Institute-approved absences*
- *Lab safety*
- *Preparation for guest speakers*
- *Re-grading and re-submission*
- *Recording class activities]*

Campus Resources for Students

[Students might not be aware of all available campus resources. In this section you can include specific resources that might help students succeed in your class (e.g., the library, The Communication Center, or Tutoring and Academic Services).

Undergraduate Student Academic Success Resources:

[For undergraduate courses, a sample statement that might be included in your syllabus for this section is "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:

[Some faculty include resources that support students' mental and emotional well-being. Including these additional resources on your syllabus communicates to students that you care about them and that you are committed to facilitating their academic progress. For all courses, a sample statement that might be included in your syllabus is

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. 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)

[More resources on supporting student well-being on the syllabus and beyond are available through the Learning Well Initiative.]

Additional Syllabus Components [remove this heading from your final syllabus]

[Depending on your specific context, as well as your own approach to your course and your teaching, you might decide to add other components to your syllabus. Research suggests that a more detailed syllabus is seen by students as a sign of teaching effectiveness, instructor approachability and flexibility, and as a motivating factor in class preparation. Additional information on your syllabus might include:

- *a statement of your teaching philosophy;*
- *Consider linking to the strategic plan and emphasizing the intention to create a holistic learning environment where all individuals can grow and learn to lead healthy, purposeful, impactful lives;*
- *a statement about the importance of student mental health and well-being.*
- *rationale for your teaching techniques;*
- *grading rubrics;*
- *information about labs, recitations, etc.;*
- *advice on how to succeed in your course.]*