



System Supportability and Logistics – SYS 640

School of Systems and Enterprises
Spring 2023

Instructor: Yeganeh M. Hayeri

Canvas Course Address: <https://sit.instructure.com/courses/59381>

Credit: 3

Course Schedule: Tuesday - Monday

Contact Info: yhayeri@stevens.edu, 201-216-2579

Virtual Office Hours: TBD

Virtual session URL: **[Every online course should make use of the web conferencing system provided by Stevens for synchronous (live) sessions. Copy and paste the meeting room link here.]**

Prerequisite(s): None

Corequisite(s): None

Cross-listed with: None

COURSE DESCRIPTION

System Supportability and Logistics introduces students to a disciplined approach to providing efficient and effective system logistics support, so that a system is ensured of satisfying its business and operational readiness requirements. Particular focus will be placed on the concept of integrated supply chain and demand management, and the optimization and allocation of a system's logistic resources to ensure maximum availability at the lowest investment in logistics resources. The course introduces the latest thinking and technologies with regard to system training, documentation, inventory management and transportation.

STUDENT LEARNING OUTCOMES

Students will learn to optimize between resources, stakeholders' demands and operational requirements. Students will learn the fundamentals of supportability and logistics for complex systems. By the end of the course, students will be able to develop a fundamental understanding of effective system logistics support, and solve system logistics problems using demand forecasting, inventory estimation, and transportation network design. Students will learn to integrate system supportability and logistics techniques and technologies to real-world business cases and government organizations, while formulating strategies that maximize cost effectiveness and minimize resources in a timely manner. Students will determine the elements necessary to optimize the allocation of a system's logistic resources and will apply system supportability and logistics tools and techniques to satisfy business and operational requirements.

These tools—or rather, this *system* of thinking about these tools—will prepare them for the decision-making and design challenges required of a systems engineer, giving them the skills to create sophisticated and efficient support frameworks for complex systems.

After successful completion of this course, students will be able to

- Integrate the knowledge acquired in this course.
- Integrate how the concepts and ideas in this course apply to actual business and/or government organizations.
- Apply the System Supportability and Logistics tools and techniques acquired in this course.

COURSE FORMAT AND STRUCTURE

This course is fully online. To access the course, please visit stevens.edu/canvas . For more information about course access or support, contact the Technology Resource and Assistance Center (TRAC) by calling 201-216-5500.

Course Logistics

- You are encouraged to "mentally enroll" in this course as if it occurred on Tuesdays. In other words, our weeks will run from Tuesday to Monday. I will post information (online activities, discussion starters, etc.) for the upcoming week by Monday evening so that when you log in on Tuesday, you can begin the new week.
- When assignments are due, they are due by 11:59 pm EST on the due date listed in the course schedule.
- Deadlines are an unavoidable part of being a professional, and this course is no exception. Course requirements must be completed and posted or submitted on or before the specified due date and delivery time deadline. Due dates and delivery time deadlines are in Eastern Time (as used in Hoboken, NJ). Please note that students living in distant time zones or overseas must comply with this course time and due date deadline policy. Avoid any inclination to procrastinate. Due dates have been established for each assignment to encourage you to stay on schedule.
- Assignments received within 24 hours after the due date will have 50% of the total points deducted; assignments received more than 24 hours late will receive 0 points. An assignment file should be appended by your username, such as "assignment1_kim53.doc". This makes it easier for me to manage assignment files you download to my computer.

Instructor's Online Hours

I will be available via email and respond as soon as I am available (generally within 24-48). For the online discussions, I will check in at least three times per week. Keep in mind that it is not possible for me to respond to every single posting every week (nor is it pedagogically appropriate), but I will be sure to respond to various postings and students each week and attempt to assure equality in terms of responses to students. Furthermore, there is a specific discussion forum that you can use to ensure that you have my attention – to ask questions or to call my attention to a particular discussion you are engaged in that you would like me to take a look at. If you feel you are being neglected in any way, please contact me. When emailing me, please place in the subject line the course number/section and the topic of the email (i.e., SYS640 – Assignment 2 Question). This will help me tremendously in locating your emails quicker when I scan the hundreds of emails that seem to make it into my box each day.*

Virtual Office Hours

Virtual Office Hours are a synchronous session (through Zoom) to discuss questions related to weekly readings and/or assignments. Office hours will be held **Monday evenings from 7:00-8:00 pm EST**. To connect to the weekly session, go to <https://stevens.zoom.us/j/4328434939>. When you arrive for the office hour you will be placed in a wait room. Please be patient. Office hours are first come, first served.

Online Etiquette Guidelines

Your instructor and fellow students wish to foster a safe online learning environment. No matter how different or controversial they may be perceived, all opinions and experiences must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea, but you cannot attack an individual. Our differences, some of which are outlined in the University's inclusion statement below, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambiance. Please read the Netiquette rules for this course:

- Do not dominate any discussion. Allow other students to join in the discussion.
- Do not use offensive language. Present ideas appropriately.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.
- Avoid using vernacular and/or slang language as it could lead to misinterpretation.
- Keep an "open-mind" and be willing to express even your minority opinion.
- Think and edit before you push the "Send" button.
- Do not hesitate to ask for feedback.

TENTATIVE COURSE SCHEDULE

This is a tentative course schedule. Any change to this schedule will be communicated via Canvas. Assignments will be available on Tuesdays and will be due on Tuesdays by 11:59pm EST. All assignment must be submitted electronically via Canvas.

Tentative Course Schedule

Module	Topic(s)	Readings	Assignment
Week/Module 00 (Orientation Week)	Introduction and Course Overview	Required: None Optional: None	Student Introduction Due in class on x/x
Module 01	Introduction to System Supportability and Logistics	Section M1.B1 to M1.B2	HW #1 due x/x via Canvas
Module 02	Introduction to Supply Chain Management	Section M2.A1 to M2.A2	HW #2 due x/x via Canvas
Module 03	Deterministic and Probabilistic Models	Optional: Section M3.A1	No HW
Module 04	Forecasting	Section M4.A....	HW #3 due x/x via Canvas

Module 05	Inventory Management	Section M5.A....	HW #4 due x/x via Canvas
Module 06	Transportation 1	Section M6.A....	HW #5 due x/x via Canvas
Module 07	Transportation 2	Section M7.A....	HW #6 due x/x via Canvas
Module 08	Warehousing	Section M8.A....	HW #7 due x/x via Canvas
Module 09	Documentation	Section M9.A....	No HW
Module 10	Manpower, Personnel and Training	Section M10.A....	Discussion Board Submittal
Module 11	Supply Support	Section M11.A....	HW #8 due x/x via Canvas
Module 12	Spares Modeling	Section M12.A....	Discussion Board Submittal
Module 13	Spares Optimization	Section M13.A....	Final Exam

COURSE MATERIALS

Textbook(s): None
Other Readings: Provided via Canvas
Materials: Provided via Canvas

COURSE REQUIREMENTS

Participation: Students are expected to attend the weekly 90 minute live session and engage in discussions and activities assigned for the week.

Homework: All homework should be submitted electronically via Canvas by 11:59pm EST on Tuesdays. Students generally have one week to work on a homework.

Quizzes: Every module of the course includes a multiple choice question quiz. The quizzes are conducted on Canvas and are graded by Canvas.

Final Exams: The course has one Final Exam, which covers all the material students learned in the course. It includes multiple choice questions, short answer questions and quantitative problems.

TECHNOLOGY REQUIREMENTS

Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Canvas

Technology skills necessary for this specific course

- Live web conferencing using Zoom
- Recording a slide presentation with audio narration

Required Equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed
- Microphone: built-in laptop or tablet mic or external microphone

Required Software

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Current or first previous major release of Chrome, Firefox, Edge, or Safari browser

GRADING PROCEDURES

Grades will be based on:

Class Participation - Live Sessions	15%
Homework	35%
Quizzes	13%
Discussion Board Submissions	12%
Final Exam	25%

Grading scale for the course is as follows:

Late Policy

Assignments received within 24 hours after the due date will have 50% of the total points deducted; assignments received more than 24 hours late will receive 0 points.

Academic Integrity

Graduate Student Code of Academic Integrity

All Stevens graduate students promise to be fully truthful and avoid dishonesty, fraud, misrepresentation, and deceit of any type in relation to their academic work. A student's submission of work for academic credit indicates that the work is the student's own. All outside assistance must be acknowledged. Any student who violates this code or who knowingly assists another student in violating this code shall be subject to discipline.

All graduate students are bound to the Graduate Student Code of Academic Integrity by enrollment in graduate coursework at Stevens. It is the responsibility of each graduate student to understand and adhere to the Graduate Student Code of Academic Integrity. More information including types of violations, the process for handling perceived violations, and types of sanctions can be found at www.stevens.edu/provost/graduate-academics.

Special Provisions for Undergraduate Students in 500-level Courses

The general provisions of the Stevens Honor System do not apply fully to graduate courses, 500 level or otherwise. Any student who wishes to report an undergraduate for a violation in a

500-level course shall submit the report to the Honor Board following the protocol for undergraduate courses, and an investigation will be conducted following the same process for an appeal on false accusation described in Section 8.04 of the Bylaws of the Honor System. Any student who wishes to report a graduate student may submit the report to the Dean of Graduate Academics or to the Honor Board, who will refer the report to the Dean. The Honor Board Chairman will give the Dean of Graduate Academics weekly updates on the progress of any casework relating to 500-level courses. For more information about the scope, penalties, and procedures pertaining to undergraduate students in 500-level courses, see Section 9 of the Bylaws of the Honor System document, located on the Honor Board website.

EXAM CONDITIONS

The following procedures apply to quizzes and exams for this course. As the instructor, I reserve the right to modify any conditions set forth below by printing revised Exam Conditions on the quiz or exam.

1. Students may use the following materials during quizzes and/or exams. Any materials that are not mentioned in the list below are not permitted.

Material	Permitted?	
	Yes	No
Handwritten Notes Conditions: i.e. size of note sheet	X	
Typed Notes Conditions: i.e. size of note sheet	X	
Textbooks Conditions: i.e. specific books	X	
Readings Conditions: i.e. specific documents	X	
Other (specify)		X

2. Students are not allowed to work with or talk to other students during quizzes and/or exams.

LEARNING ACCOMMODATIONS

Stevens Institute of Technology is dedicated to providing appropriate accommodations to students with documented disabilities. The Office of Disability Services (ODS) works with undergraduate and graduate students with learning disabilities, attention deficit-hyperactivity disorders, physical disabilities, sensory impairments, psychiatric disorders, and other such disabilities in order to help students achieve their academic and personal potential. They facilitate equal access to the educational programs and opportunities offered at Stevens and coordinate reasonable accommodations for eligible students. These services are designed to encourage independence and self-advocacy with support from the ODS staff. The ODS staff will facilitate the provision of accommodations on a case-by-case basis.

For more information about Disability Services and the process to receive accommodations, visit <https://www.stevens.edu/office-disability-services>. If you have any questions please contact: Phillip Gehman, the Director of Disability Services Coordinator at Stevens Institute of Technology at pgehman@stevens.edu or by phone 201-216-3748.

Disability Services Confidentiality Policy

Student Disability Files are kept separate from academic files and are stored in a secure location within the Office of Disability Services. The Family Educational Rights Privacy Act (FERPA, 20 U.S.C. 1232g; 34CFR, Part 99) regulates disclosure of disability documentation and records maintained by Stevens Disability Services. According to this act, prior written consent by the student is required before our Disability Services office may release disability documentation or records to anyone. An exception is made in unusual circumstances, such as the case of health and safety emergencies.

INCLUSIVITY

Name and Pronoun Usage

As this course includes group work and class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect. This includes the ability for all students to have their chosen gender pronoun(s) and chosen name affirmed. If the class roster does not align with your name and/or pronouns, please inform the instructor of the necessary changes.

Inclusion Statement

Stevens Institute of Technology believes that diversity and inclusiveness are essential to excellence in academic discourse and innovation. In this class, the perspective of people of all races, ethnicities, gender expressions and gender identities, religions, sexual orientations, disabilities, socioeconomic backgrounds, and nationalities will be respected and viewed as a resource and benefit throughout the semester. Suggestions to further diversify class materials and assignments are encouraged. If any course meetings conflict with your religious events, please do not hesitate to reach out to your instructor to make alternative arrangements.

You are expected to treat your instructor and all other participants in the course with courtesy and respect. Disrespectful conduct and harassing statements will not be tolerated and may result in disciplinary actions.

MENTAL HEALTH RESOURCES

Part of being successful in the classroom involves a focus on your whole self, including your mental health. While you are at Stevens, there are many resources to promote and support mental health. The Office of Counseling and Psychological Services (CAPS) offers free and confidential services to all enrolled students who are struggling to cope with personal issues (e.g., difficulty adjusting to college or trouble managing stress) or psychological difficulties (e.g., anxiety and depression). Appointments can be made by phone (201-216-5177).

EMERGENCY INFORMATION

In the event of an urgent or emergent concern about the safety of yourself or someone else in the Stevens community, please immediately call the Stevens Campus Police at 201-216-5105 or on their emergency line at 201-216-3911. These phone lines are staffed 24/7, year round. For students who do not reside near the campus and require emergency support, please contact your local emergency response providers at 911 or via your local police precinct. Other 24/7 national resources for students dealing with mental health crises include the National Suicide Prevention Lifeline (1-800-273-8255) and the Crisis Text Line (text "Home" to 741-741). If you are concerned about the wellbeing of another Stevens student, and the matter is *not* urgent or time sensitive, please email the CARE Team at care@stevens.edu. A member of the CARE Team will respond to your concern as soon as possible.

