Course Code
Supply Chain Management
Module 2, 2025-2026

Course Information

Instructor: Dr. Yue Zhao
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Classes:
Lectures: Mon & Thu, 15:30-17:20
Venue: PHBS Building, Room

1. Course Description

1.1 Context

Course overview: This course aims to introduce students to the key concepts and issues involved in designing and managing logistics and supply chains. We will cover topics such as the definition and principles of logistics and supply chain management, key costs and metrics, inventory management, supply chain planning, network design, and logistics management. Throughout the course, we will emphasize the use of **AI tools** to help students build **analytical framework** to understand and address these issues. By the end of the course, students should have a comprehensive understanding of the analytical approaches used in supply chain management.

Prerequisites: Knowledge in optimization is a plus, but not a requirement

1.2 Textbooks and Reading Materials

Materials will mainly be lecture notes, but the following can be useful for further study:

- D*esigning and Managing the Supply Chain: Concepts Strategies and Case Studies,* David Simchi-Levi, Philip Kaminsky and Edith Simchi-Levi, 2021, McGraw-Hill.
- *Fundamentals of Supply Chain Theory*. Larry Snyder and Max Shen. 2019. Wiley.

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment (YES with details or

		NO)
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	Yes
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Yes
2. Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	Yes
	2.2. Students will be able to apply leadership theories and related skills.	Yes
3. Our graduates will be trained in ethics.	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	Yes
	3.2. Our students will practice ethics in the duration of the program.	Yes
4. Our graduates will have a global perspective.	4.1. Students will have an international exposure.	Yes
5. Our graduates will be skilled in problem-solving and critical thinking.	5.1. Our students will have a good understanding of fundamental theories in their fields.	Yes
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	Yes
	5.3. Our students will demonstrate competency in critical thinking.	Yes

2.2 Course specific objectives

There will be key concepts, mathematical programming, real-world examples, one industry speaker (depend on schedules), some short on-class quizzes, and a term project using this course's concepts, principles, and analytical frameworks. The emphasis will be on foundational principles and analytical methods of enduring value to tomorrow's supply chain designers, managers and consultants.

2.3 Assessment/Grading Details

Component	**Weightage**
Class Participation	10%
Individual Assignments	20%
Brief In-class Quiz 1 (Nov 27)	15%
Brief In-class Quiz 2 (Dec 18)	15%
Group Projects	40%
Total	**100%**

2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

AI tools requirements：
Using AI tools to complete assignments or assessments without the approval of the course instructor will be regarded as an act of academic dishonesty. Depending on the severity of the situation, penalties will be implemented in accordance with the provisions of the Peking University Graduate Student Handbook.

For more information of plagiarism, please refer to *PHBS Student Handbook*.

AI tools guidelines for this course
a) You are encouraged to explore LLMs, such as ChatGPT, to enhance your learning experience. At times, you may be explicitly asked to use LLMs and analyze its output for specific problems.
b) When utilizing AI tools, it is essential to appropriately acknowledge and cite their use in your written submissions (e.g., code, reports), including the specific version of the tool employed.
c) Please note that content generated by AI tools may not always be accurate or suitable. It is your responsibility to critically evaluate the validity and applicability of any AI output included in your submissions.
d) Failure to adhere to these guidelines will be regarded as an act of academic dishonesty.

3. Topics, Teaching and Assessment Schedule

Week	Topics
1	Introduction to supply chain management & AI tools guidelines
2	Inventory Management: Deterministic Demand o Economic order quantity (EOQ) model
3	Inventory Management: Stochastic Demand o Single-period inventory model: Newsvendor o Multi-period inventory models
4	Data-driven Inventory Management o Forecasting, Simulation, Optimization o Inventory models revisited
5	Supply Chain Risk Management o Risk pooling, postponement, and transshipment o Demand vs supply uncertainty

6	Capacity Management o Resource allocation o Process flexibility o Product substitution
7	Supply Chain Network Design o Transportation problem o Facility location models
8	Logistics Management o Traveling salesman problem (TSP) o Vehicle routing problem (VRP)
9	Supply Chain Coordination o Supply chain contracts Project Presentation

4. Miscellaneous