IEDA4410 Data Driven Supply Chain Management

Fall 2023
Mon. 1:30 – 2:50pm, Fri. 9:00 – 10:20am
Room G009B, CYT Bldg

Instructor

Xuan QIU
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Office hours: by appointment

Teaching Assistants

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Course Description

With the advancement of information technology and globalization, competition is no longer restrictedto local participants but on the performance of the entire supply chain. The ability to capture, store, aggregate and analyze data and then extract intelligence is now rapidly becoming a mandate for virtuallyall organizations. This course offers an introduction to the basic concepts and philosophies of supply chain management including inventory management, risk pooling, bullwhip effect, smart pricing and supply chain coordination. Moreover, real world companies' cases are discussed to show how to leverage big data and analytics to extract new insights and gain competitive advantages from supply chains.

Textbook

David Simchi-Levi et al., Philip Kaminsky and Edith Simchi-Levi. Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies, , McGraw-Hill

Assessment and Grades

Homework	5%
Class participation	15%
Project	15%
Mid-term exam	25%
Final Exam	40%

- No late homework is accepted. Please submit through canvas.
- Both midterm and final exams are closed book and closed notes

Course Outline

The schedule is subject to change at the instructor's discretion. Students are advised to check the course website regularly for updated information.

	Topics	Readings
1	Introduction	
2	Inventory management	Chapter 2
3	Risk pooling strategies	Chapter 2 *Case 1: Sport Obermeyer (pp. 63-67)*
4	Bullwhip effect controlling	Chapter 5 *Case 2: Barilla SpA(A) (pp. 143-152)*
5	Outsourcing	*Case 3: Zara: Fast Fashion*
6	Postponement	*Case 4: HP (pp. 331-337 & pp. 358-362)* *Case 5: Zara: An integrated store and online model*
7	Smart pricing	Chapter 13 *Case 6: Allegiant Airline*
8	Supply contracts and risk sharing	Chapter 4
9	Sharing Economy	*Case 7: Uber*
10	Supply Chain Design Strategies	*Case 8: Apple Global Supply Chain*