

# DATA SCIENCES AND OPERATIONS

PRING 2023 SEMESTER

## DSO 581 — *Supply Chain Management*

*Section – 16288*

### Professor

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### When

*Tue/Thu, 12:30 PM 1:50 PM*

### Office

*BRI 307 A*

### Units

*3.0*



## WHO SHOULD TAKE THIS COURSE?

Anybody interested in consulting, marketing, operations, manufacturing, or entrepreneurship. Firms need a sound knowledge of how supply chains work, what are the key metrics, and what incentives have to be provided for the systems to work well.

## COURSE OBJECTIVES

To provide students with an understanding of the intricacies of supply chains. To learn tools for management and improvement of supply chain processes and performance.

## KEY CONCEPTS

- Inventory management
- Cycle and safety inventory
- Newsvendor model
- Distribution system design
- Supply chain coordination
- Logistics
- Forecasting
- Network design
- Aggregate planning
- Enterprise resources planning
- Just-in-time manufacturing
- Supplier management
- IT in supply chains
- Sustainability and supply chains

## COURSE DESCRIPTION

Supply chains have been in the news a lot since the pandemic... from shortage of PPE/toilet paper to the more recent backup in the port of LA. We explore important supply chain metrics, the primary tradeoffs in making supply chain decisions, and the basic tools for effective and efficient supply chain management, production planning and inventory control, order fulfillment and supply chain coordination. Several recent trends such as mass-customization, sustainability & supply chain resiliency, and influential innovations such as revenue management, fast fashion, reverse logistics, RFID and SaaS will be discussed.