

IHE 7820 – Engineering Supply Chain Systems

Course Description:

Examination of the character of the pre-modern world from prehistory through the 15th century with special attention to those aspects of ancient and medieval life that had the greatest effect on the development of Western society, politics, and culture. Integrated Writing course.

Offered both face-to-face and online

Graduate level – 3 credit hours

Course Learning Objectives

Students enrolled in this course will learn to:

- Identify the objective and importance of managing a supply chain
- Analyze the relationship between key drivers of a supply chain
- Use analytical tools to design and analyze supply chain network, conduct demand forecasting, and design distribution networks
- Identify key factors that led to the success of companies such as Walmart, Dell, and Amazon

Course Learning Outcomes

Upon successful completion of this course, students can:

- Identify the objective and importance of managing a supply chain
- Analyze the relationship between key drivers of a supply chain
- Use analytical tools to design and analyze supply chain network, conduct demand forecasting, and design distribution networks
- Identify key factors that led to the success of companies such as Walmart, Dell, and Amazon

Tentative Weekly Schedule

Whether taught in-person, online, or partially online, the course outline remains the same.

Week 1	Introduction to Supply Chain with examples
Week 2	Achieving strategic fit; Start discussing project ideas
Week 3	Supply Chain Drivers
Week 4	Network design; Homework 1 Due
Week 5	Location-allocation models
Week 6	Project proposal; Demand Forecasting
Week 7	Homework 2 due; Demand forecasting; Quiz 1
Week 8	Inventory theory
Week 9	Inventory theory
Week 10	Project progress report: Aggregate Planning
Week 11	Midterm Exam
Week 12	Warehouse design; Transportation planning
Week 13	Trends in supply chain (sustainability, drone delivery, onmi-channel retailing)
Week 14	Project presentations
Week 15	Finals Week; Project report due during finals week

