THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Quantitative Models in Production and Distribution Logistics

ISE 5410

Credit Hours:
3.00 - 3.00

Course Levels:
Undergraduate (1000-5000 level)
Graduate

Course Components:
Lecture

Course Description:
Introduction to quantitative models in supply chain management and logistics including: location analysis, inventory management, vehicle routing, coordination, risk pooling, reverse logistics.

Prerequisites and Co-requisites:
Prereq: 3210 and 3400.

Course Goals / Objectives:
- Develop quantitative decision models and solution tools for various problems in logistics
- Use these tools to analyze strategic, tactical, and operational decisions in logistics

Course Topics:
- Supply chain management concepts: inventory management, bullwhip effect, vendor managed inventory
- Distribution planning: transportation modes, vehicle routing, risk pooling, consolidation, network design, third party logistics
- Reverse logistics

Designation:
Elective