

ISTANBUL TECHNICAL UNIVERSITY
Aviation Institute: M.Sc. Air Transport Management

Course: Logistic Management in Air Transport

December 15-20, 2014

COURSE MAJOR TOPICS

- Supply Chain Strategy
- Customer Service Goals
 - Packaging, pricing and incentives
 - Defining service levels and links to inventory
 - Order processing design
- Transportation & Logistics Strategy
 - Market structure for services
 - Cost characteristics
 - Pricing and rate structures
 - Consolidation
 - Modal Choice-the tradeoffs
- Inventory Management
 - Forecasting
 - Types of inventories-push and pull
 - Deterministic and stochastic demand models
 - Single period vs multi-period
- Process analysis
 - Flow time, flow rate and Little's Law
 - Capacity analysis
 - Factor substitution
- Queuing systems
 - Bottlenecks
 - Different queuing models (e.g., single vs multi-servers)
- Forecasting and Risk Management
 - Forecasting methods
 - Time series decomposition
 - Regression techniques