

# Inventory Management

## Distribution Requirements Planning

Lecture 11  
ESD.260 Fall 2003

Caplice

# Assumptions: Basic DRP Model

- ◆ Demand
  - Constant vs **Variable**
  - **Known** vs Random
  - Continuous vs **Discrete**
- ◆ Lead time
  - Instantaneous
  - **Constant** or **Variable** (deterministic/stochastic)
- ◆ Dependence of items
  - **Independent**
  - Correlated
  - Indentured
- ◆ Review Time
  - **Continuous** vs Periodic
- ◆ Number of Echelons
  - One vs **Many**
- ◆ Capacity / Resources
  - **Unlimited** vs Limited
- ◆ Discounts
  - **None**
  - All Units or Incremental
- ◆ Excess Demand
  - **None**
  - All orders are backordered
  - Lost orders
  - Substitution
- ◆ Perishability
  - **None**
  - Uniform with time
- ◆ Planning Horizon
  - Single Period
  - **Finite Period**
  - Infinite
- ◆ Number of Items
  - **One**
  - Many

# A Multi-Echelon Inventory System

