



Operations Management

Summer 2002,
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Thank you for using your
Name Cards



Course Materials

- 15.761 SDM Course Package
- *The Memory Jogger* (Handout)
- Goldratt & Cox, *The Goal*
 - Begin Reading
no later than 6/24



Optional Textbooks

- Nahmias
*Production and
Operations Analysis*

- Spearman & Hopp
Factory Physics



Class Sessions

- Dialogue & Discussions
- Students alternatively (???) address Lead Questions
- Preparation & Participation



Grading

- Class Participation 40%
- 1st Case Write-Up 20%
- 2nd Case Write-Up 20%
- Problem Sets (3) 20%



Class Participation

- Relevant
- Contextual
- Insightful
- Supported
- Innovative




Write-Ups: Requirements

- Two Assignments
 - Due in Class !!!
 - University Health Services
 - Sport Obermeyer
- ≤ 1500 Words, ≤ 6 exhibits
- Groups of 1 to 3
- Not just answering questions in Syllabus



Write-Ups: Grading

- Analysis
- Exhibits
- Recommendations
- Presentation



Superfluous
Charts



3 Problem Sets

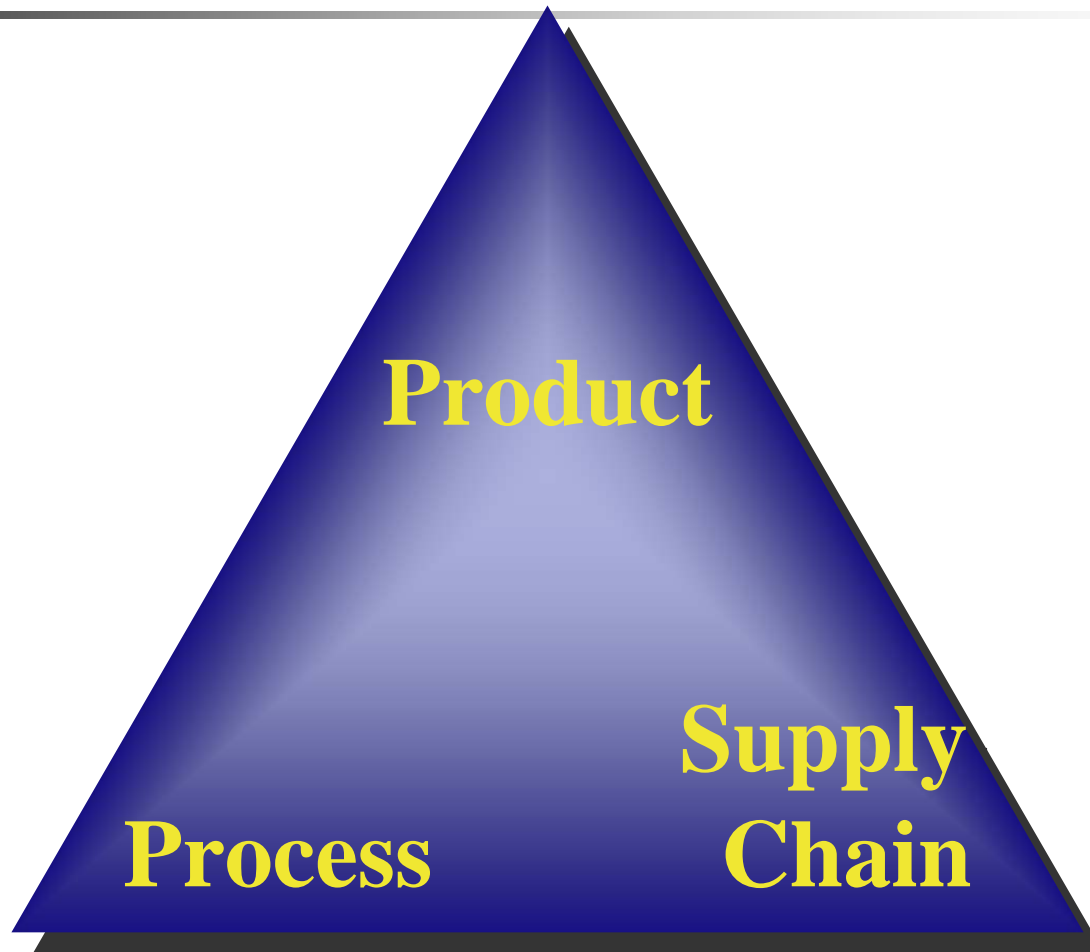
- Enhance Mathematical Tools
- To be distributed in Class
- Groups of 1 to 3



What is Operations Mgmt.?

- Creation and Distribution of Goods and Services
- Procurement of Required Materials

The 3 Dimensions of Operations





The Realm of Operations





Tactical & Strategic Decisions

- Strategic Decisions
 - Process Selection
 - Network Design
 - Technology Choice
 - Product Design
 - Capacity & Scale
 - Supplier & Customer Relations
- Tactical Decisions
 - Procedure Selection
 - Information Flows
 - Scheduling (How much, when, what)
 - Inventory

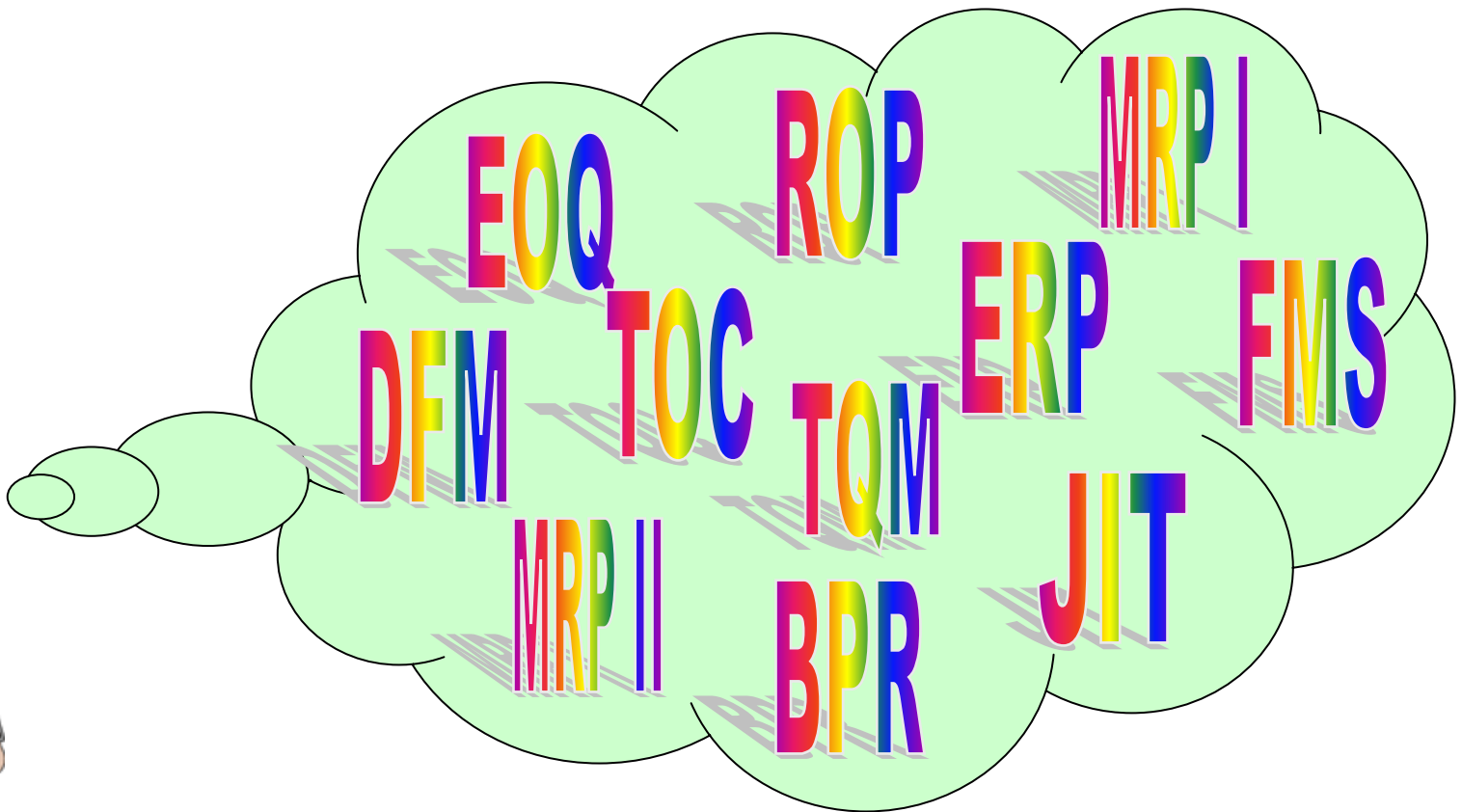


Structure of Course

- Tools
- Processes
- Planning and Coordination
- Quality Management
- Project Management
- Supply Chain Management



What's behind the Acronyms?





Tools

- Queueing Theory
- Inventory Control
 - Economic Order Quantity (EOQ)
 - Newsvendor Model
 - Optimal Order Policies (ROP)
- Forecasting
- Statistical Process Control (SPC)
- Critical Path Method (CPM/PERT)



Processes

- Process Types
- Processes and Life Cycles
- Services
 - Food
 - Health Care



Planning & Coordination

- Theory of Constraints
- From MRP to ERP
- Cellular Manufacturing
- BPR
- JIT



Quality Management

- Deming
- Juran
- Crosby
- 6-sigma
- Robust Design
- SPC



Project Management

- Product Launch
- Critical Path (CPM/PERT)
- Risk Management
- Competitive Project Management
- The Design Structure Matrix (DSM)



Supply Chain Management

- Rapid Response
- Customer Service
- Inventory Positioning
- Logistics System Design
- Coordination
- Core Competencies