

# **Operations Strategy 15.769**

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Professor Donald Rosenfield**

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Cambridge, Massachusetts 02142**

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# Charles H. Fine

- a. Joined Sloan faculty in January 1983  
Operations Management Group  
PhD, Stanford Business School
- b. Experience in Auto, Aero, Elect, Telecom, CP
- c. Taught: Intro to Ops, Service Ops, SC, Ops Strat, ...
- d. Research in
  - i. Economics of Quality Improvement
  - ii. Economics of Flexible Manufacturing
  - iii. Supply Chain Design
  - iv. Value Chain Dynamics & Roadmapping

# Donald B. Rosenfield

- a. Director, Leaders For Global Operations Program  
Senior Lecturer, Sloan
- b. Joined MIT part time in 1980, full time in 1988,  
after 12 years in consulting  
Ph.D in OR from Stanford, 3 degrees from MIT  
Operations Management Group
- c. Worked extensively with LGO companies
- d. Taught: Intro ops, DMD, Ops Strat, Service ops,  
Practice of ops
- e. Work in ops strategy, supply chain management

# “Housekeeping”

## 1. Course Materials:

Books: *Clockspeed*, by C. Fine, Perseus Books, 1998.

*Operations Strategy*, Beckman & Rosenfield, Irwin/McGraw Hill, 2007

## 2. Grading

|                        |     |
|------------------------|-----|
| Class participation    | 30% |
| Case write-ups (3)     | 45% |
| Two individual         |     |
| One “extended” (group) |     |
| Final project (group)  | 25% |

## 3. Values

Academic Integrity--”Do your own work”

Behavioral Integrity -- “Do unto others . . . “

# Values, Integrity, & Professional Standards

1. Sloan core values: *integrity, respect, collaboration, innovation*, and *positive impact*.
2. Do unto others . . . (laptops & phones off; timeliness; respect)
3. Academic Integrity: Understand the definition of Plagiarism.
4. Regular case write-ups are *individual work*.
5. Extended case write-ups and final projects are *group work*.
6. For group work in this class: Please use Type 3 collaboration: “Each team member must contribute substantially to the deliverable and understand the whole as well as the parts.”

# Academic Integrity

The general policy for this class is that you should **learn through your own work**, feel free to **build on the work of others**, and clearly **delineate which is which**. You should feel free to surf the web and the universe to your heart's content in search of relevant knowledge and ideas for this course. However, **do not represent the ideas or work of others as your own** and be sure to **acknowledge your debts to others**.

# **Class Participation**

- a. Do you attend class?**
- b. Do you participate positively to the learning experience in the class?**
- c. Do you distract others inappropriately?**

**Grade=f(contribution to classroom learning process)**

# 15.769 – Course Schedule

Class 1 - Course introduction; Innovation and operations discipline

Case: “McDonald’s Corp, (Abridged)”

Class 2 - Frameworks for strategy, and the decision category approach

Case: “Zara”

Class 3 - Developing an operations strategy; application of decision category approach and the capabilities approaches

Case: “BYD Company, Ltd”

Class 4 - Value Chain Dynamics & Operations Decisions

Clockspeed, *Chapters 1-4*



# 15.769 – Course Schedule

Class 5 - Value Chain Dynamics: Lessons from the Auto Industry  
*The Machine that Changed the World*, Womack, et al, Chapters 1-3

Class 6 - Enterprise Architecture and Operations Strategy  
Case: “Southwest Airlines: In a Different World”

Class 7 - Vertical integration and Outsourcing  
Case: “Boeing Commercial Airplanes’ 787 Dreamliner”

Class 8 - Business Processes  
Case: “Pharmacy Service Improvement at CVS (A)”

# 15.769 – Course Schedule

Class 9 - Process technology decisions and multiple plants

Case: “ITT Automotive: Global Manufacturing Strategy”

NO CLASS – Columbus Day

Class 10 - Capacity Strategy - How to make decisions on Capacity and Capacity expansion

Case: “Capacity Planning at Genentech”

NO CLASS – SIP Week

# 15.769 – Course Schedule

Class 11 – Facilities Strategies and Globalization, Comparisons of Plant Productivity

Case: “Applichem”

Class 12 – Summary Lecture on Facilities Strategy and Globalization  
Chapter 5 of Beckman and Rosenfield on facilities strategy

Class 13 - Sourcing and Supplier Management

Case: “Toyota Supplier Relations: Fixing the Suprima Chassis (A)”

Class 14 - Information systems and the impacts of the electronic economy

Case: “Amazon Web Services”

# 15.769 – Course Schedule

Class 15 – Logistics Systems and the Fulfillment Supply Chain

Case: “Dell Inc.: Improving the Performance of the Desktop PC Supply Chain”

Class 16 – Competing on Quality: Sources of Quality and Different Measures of Quality

Case: “Delamere Vineyard”

Class 17 - Competing on Cost Versus Competing on Availability

Case: “New Balance Athletic Shoe”

Class 18 - Competing on Cost Versus Competing on Features and Innovativeness: Types of Quality and the Product Development Process

Case: “BMW: The 7-Series Project”

# 15.769 – Course Schedule

Class 19 – Competition in the Housing Industry: Improving Cost, Quality and Availability

Case: “House Building Disrupted: Supply Chain Re-Engineering during an Epic Disaster”

Class 20 – Models for Gaining Advantage in a Global Environment, How to Position Within a Value Chains

Case: “Fast, Global, & Entrepreneurial: Supply Chain Management, Hong Kong Style”, (Li and Fung)

Class 21 - Globalization, Joint Ventures Sourcing Overseas, and Macroeconomic Effects of Off Shoring

Case: “Chiang-Sho, Ltd”

Class 22 - Supplier Power and Overseas Sourcing, Moving Up the Value Chain in Outsourcing

Case: “Flextronics International”

# 15.769 – Course Schedule

Class 23 – Presentations Part 1

Finish Chapter 11 of Beckman and Rosenfield

Class 24 – Presentations Part 2 and Wrap Up

# Themes in Operations Strategy

## 15.769

*System Integrity and consistency as core to operations excellence.*

*e.g., Toyota, McDonald's, Southwest, Zara*

*Fit Business, Operations and functional strategies*

*e.g., Auto industry, Southwest, BYD*

*Operations Innovation as source of Advantage*

*SWA, Toyota, Dell, McDonald's, BYD*

*Strategy is the pattern of operations decisions*

*Boeing, ITT, CVS, Genentech, Applichem, Amazon, Toyota, Dell*

*Processes embody distinctive and core capabilities*

*"Any process is better than no process." -- M. Hammer*

*Operations Strategies are the selection of competitive dimensions and require design tradeoffs*

*BMW, Delamere, New Balance, Housing*

*You are never done -- continuous improvement/innov is mandatory*

*McD, Toyota, BYD*

**(RFP <---> CI)**

