### MGB 252-002: Managing for Operational Excellence

Spring 2014

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### **Course Description**

Operations management is concerned with the production and delivery of goods and services to meet customers' demands. It is one of the central functions of every business, government agency, and non-for-profit organization. Operational excellence can provide an important competitive advantage for firms in today's marketplace. It has long been realized that the operations must integrate into the overall corporate strategy and planning to achieve such an advantage. Therefore, a solid understanding of operations management is important for all managers, and a working knowledge about the operations function of a firm is an integral part of your MBA education.

The objective of this course is to study the core concepts in operations management. Successful companies must be able to develop and manage efficient business processes that are capable of delivering high-quality products and services to meet their ever-changing customer demands in a timely and cost-effective manner. We thus can view operations management as the design and management of effective business processes. Therefore, this course will focus on a number of concepts and techniques for analyzing and improving business process performance. Through critical analysis of business processes, you will gain a good understanding of the major issues that are critical to the successful management of both manufacturing and service operations.

This course provides a blend of qualitative and quantitative treatment for understanding process performance and operations issues. A combination of lectures, cases, videos and in-class exercises will be used to convey the basic concepts.

#### **Course Materials**

#### Packet of cases and readings (Study.net)

Textbook: *Matching Supply with Demand: An Introduction to Operations Management* by Cachon and Terwiesch, McGraw-Hill/Irwin, 3rd edition 2012. ISBN-10: 0073525200 ISBN-13: 978-0073525204.

| Grading |
|---------|
|---------|

| Individual Homework (3 @ 5%)      | 15% |
|-----------------------------------|-----|
| Individual Case Write-up (2 @ 5%) | 10% |
| Group Case (1 @ 10%)              | 10% |
| Group Project                     | 25% |
| Class Participation               | 5%  |
| Final Exam                        | 35% |

Assignments are due at the beginning of the class on the due date.

The members of each group are jointly responsible for the group assignments. At the end of the quarter, you will be asked to evaluate the contributions of your teammates; these evaluations will influence students' grades.

### Individual Case Write-up

Two (2) short (less than two pages) individual case write ups are due. These short write-ups should focus on the conceptual understanding gained from reading the case. You have a choice of three cases to choose from.

### **Group Case**

One case report is due with regard to the HBS Case Kristen's Cookie Company. The reports should answer the questions assigned with the case (to be posted), with a brief summary. Each group submits one hardcopy at the beginning of the class.

# **Group Project**

Each group is required to observe, analyze and critique an operation/process of your choice. The operation of interest can either be a manufacturing or service process.

## Guidelines:

1. The operation must be local, so that all of the team members can observe the operations in action.

2. Pick an operation of reasonable size: A one-person operation is too small to learn or the logistics operation of Wal-Mart is too large and complicated to analyze.

3. Narrow the scope to one or two key operations issues: Why the firm has so much inventory or how can the firm deliver its order in such a small timeframe?

4. Learn from either the good or the bad: The operation can be in chaos where the team studies the associated challenges, or the operation can be a best practice, where the team studies the tricks to achieve operational excellence (or most likely, somewhere in between).

5. Identify some quantifiable measures to evaluate the operational performance. Understand what aspects of the operation drive the underlying performance.

6. Suggest ways to improve the underlying operation and discuss any implementation challenges.

Each group is required to submit a one-page project proposal in Session 4 (Saturday 4/19).

A written report is due in class in **Session 10.** Your report will be graded on its professionalism, in addition to its content. It must be clear, concise, and well-organized. The report should be **no more than 10 double-spaced pages**, plus exhibits. Make good use of exhibits such as tables and figures to support your analysis wherever appropriate.

Each group will make a 5-minute informal presentation in **Session 10** to share the main issues, your key findings, and highlight the major takeaways for your classmates from your project experience.

## **Class Participation**

In-class participation requires you to be active and participate in class. The class participation grade is based on the quality of each student's contribution. Good questions, relevant experiences, points that build on previous points and insights into the business issue under discussion are the best forms of participation.

## **Final Exam**

The final exam is closed-book, closed-notes, closed-computer. You can consult a one page "cheat sheet" (double sided ok).

# **Course Schedule (subject to change)**

| Session | MGB 252                    | Торіс                                      | Assignment Due            |
|---------|----------------------------|--|---------------------------|
|         | 002                        |  |                           |
| 1 4/5   | 4/5                        | Introduction                               |                           |
|         |                            | Textbook: Ch. 1                            |                           |
|         |                            | Syllabus                                   |                           |
|         |                            | Strategy and Process Choice                |                           |
|         | Textbook: Ch. 2.2-2.4, 2.6 |  |                           |
| 2       | 4/5                        | Process Analysis and Management            |                           |
|         |                            | Textbook: Ch. 3.1-3.4                      |                           |
| 3       | 4/19                       | Case: Kristen's Cookie Company             | Group Case: Kristen's     |
|         |                            | Managing Process Variability: Waiting Time | Cookie Company            |
|         |                            | Problems                                   | HW #1 (Process Analysis)  |
|         |                            | Textbook: Ch. 8                            |                           |
| 4       | 4/19                       | Linear Programming & Constrained           | Group Project Proposal    |
|         |                            | Optimization                               |                           |
| 5       | 5/3                        | Inventory Management (EOQ Model)           | HW #2 (Waiting Time,      |
|         |                            | Case: Deadpan                              | Linear Programming)       |
|         |                            | Textbook: Ch. 2.5, 7                       |                           |
| 6       | 5/3                        | Newsvendor Model and Forecasting           | Individual Case Write-up: |
|         |                            | Case: Zara                                 | Zara                      |
|         |                            | Textbook: Ch. 12.1-12.5, 12.7              |                           |
| 7       | 5/17                       | Managing Process Quality                   | HW #3 (EOQ, Newsvendor)   |
|         |                            | Textbook: Ch. 10                           |                           |
| 8       | 5/17                       | Lean operations, JIT and MRP/ERP           | Individual Case Write-up: |
|         |                            | Case: Toyota Motor Manufacturing, U.S.A.   | Toyota                    |
|         |                            | Textbook: Ch. 11                           |                           |
| 9       | 5/31                       | Supply Chain Management                    | Individual Case Write-up: |
|         |                            | The Beer Game                              | Barilla                   |
|         |                            | Case: Barilla                              |                           |
|         |                            | Textbook: Ch. 17.1-17.2                    |                           |
| 10      | 5/31                       | Project Management                         | Group Project Report      |
|         |                            | Textbook: Ch. 5                            |                           |
|         |                            | Group Project Presentation                 |                           |
| Final   | 6/7                        |  |                           |