Catalogue Entry:

Class Time: Every Other Tuesday 5:00 – 9:00 PM  Credits: 3 (ORU Building)

Services and product development and process change. Managing the learning curve. Conflicts between innovation and productivity. Operations management as an element of overall strategy. Flexible operations systems and automation and information systems. In this course students will develop an understanding of the strategies, tools, processes and techniques for improving the profitability and competitiveness of modern businesses from an operations perspective. Among other areas that receive emphasis are developing an operations strategy; managing operations as technology and economics change; measuring and improving "productivity" in the modern manufacturing and service sectors using activity-based costing in operations management.

Course Description and Syllabus:

This course is focused on developing a deeper understanding of the role that operations management plays in determining business strategy and in developing competitive advantage. The primary emphasis of this course will be on how develop and effectively manage operations. This is especially important when one considers the interconnected environment within which most firms operate, where the boundaries of the organization are sometimes both unclear and continually shifting.

Managing the effective integration of technology, people, and operating systems presents critical challenges to business leaders. To achieve competitive advantage, managers must thoroughly understand the complex processes that underlie the development and creation of products and services. At the same time, these underlying processes and systems create distinctive competencies for the firm today that require an emphasis on continuous improvement to remain competitive. In this respect, the aim of this course is to develop frameworks and methodologies that will enable managers to develop and refine their ability to make a contribution to their firm’s competitive position. Topics encompass all elements of developing and maintaining an effective operations strategy.

Students will have individual and group assignments, and an assigned term project that coincides with lecture and reading material.

General Course Objectives:

- Understand the complexities and challenges of operations management;
- Discuss process development and operations management fundamentals and understand key managerial trade-offs;
- Review the importance, and challenges of developing the capability to adapt to uncertainty;
- Review the importance and challenge of developing and managing supply chain networks;
- Discuss the critical role of technology in developing operational capability;
- Learn how to assess current performance and develop operational improvement strategies;
• Prepare the student to develop skills and concepts needed to ensure the ongoing contribution of a firm's operations to its competitive position.

**Representative Key Areas Covered in Class Include:** Design of Goods and Services, Managing for Quality, Process Strategy, Capacity Planning, Supply Chain Management, Outsourcing, Inventory Management, Just-in-Time Planning, Maintenance and Reliability, Enterprise Architecture, Role of Technology Solutions, Value Chain Analysis.

**Text:**


• Additional readings will be assigned in class

**Course Outline:**

• **Weeks 1 & 2:** Introduction to Operations Management; Designing Operations (Heizer & Render: Chapters 1-2; 5)

• **Weeks 3 & 4:** Information Technology Infrastructure (Heizer & Render: Chapters 6-7)

• **Week 5 & 6:** Key System Applications for the Digital Age (Heizer & Render: Chapters 11-12)

• **Week 7 & 8:** Building and Managing Systems (Heizer & Render: Chapters 16-17)

• **Week 9:** Final Project Presentations; Final Exam

**Grading:**

25% - Term project  
20% - Overall classroom activities including attendance and classroom participation.  
30% - Homework and in-class presentations  
25% - Final exam

**Instructor:**

Dr. Teresa Piliouras (email: piliouras@west.poly.edu; Office: 203-227-5556)

If you have any problems in this course or questions relating to the material or homework, please do not hesitate to contact me as soon as possible. You can always contact by email (see above), and I am available by appointment.

**Academic Integrity:**

Cheating or plagiarism on an assignment will result in loss of credit for the assignment for all parties involved. All reference sources should be properly cited. Cheating on the final exam will result in a failing grade for the course. Students should be familiar with and adhere to the NYU-Polytechnic University academic integrity clause.