

**DOMINICAN UNIVERSITY
ROSARY COLLEGE OF ARTS AND SCIENCE
GSB 723 – OPERATIONS MANAGEMENT
SPRING 2017 SYLLABUS**

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COURSE DESCRIPTION

Catalog: GSB 723 analyzes the role of operations management in manufacturing and service organizations. Topics include production planning, master scheduling, inventory control, material requirements planning, personnel planning, quality control, and just-in-time systems.

Instructor: The course will focus on the concepts and methods necessary to direct and control the "transformation process" of resources into goods and services - within an integrated framework/model of the firm. While the course will be primarily text-based, selected business cases and in-class exercises will be utilized to connect the ideas and techniques to their real-world application.

EXPECTED LEARNING OUTCOMES

Upon successful completion of this course, students should be able to:

- Explain the strategic importance of operations management, the elements of operations strategy, and the basic principles of operations management;
- Explain the Factory Physics® Framework and the portfolio of strategic buffers (time, inventory, capacity) available to execute operations strategy;
- Apply demand management methodologies - including forecasting principles and capacity planning - to develop business, sales, and production plans;
- Explain the role of inventory within the firm and how to maximize its utility;
- Discuss the capabilities and limitations of alternative methods of operations planning and control - including material requirements planning (MRP), just-in-time (JIT), and theory of constraints (TOC) - and, thereby, make an informed choice of the method appropriate for a particular firm;
- Define the advantages and critical success factors of alternative operations process flows - including job/project, batch, repetitive, and continuous;
- Apply the principles and techniques of total quality management - including quality tools, employee involvement, supplier partnerships, and total preventative maintenance - to assist in meeting customers' requirements;
- Implement operations productivity improvement techniques in order to enhance operational effectiveness;
- Apply operations management concepts and tools within a service environment.

MEETING TIME AND DAYS

Tuesday Evening, 6:30-9:30 PM

REQUIRED TEXTS

Wallace Hopp and Mark Spearman, Factory Physics, 3rd Edition. ISBN: 978-0-07-282403-2

ASSESSMENT OF STUDENT LEARNING

Grading:

The table below shows the weights of the various course components:

- Quizzes (2 @ 25% each) = 50%
- Case Analyses (3 @ 10% each) = 30%
- In-class Exercises and Participation = 20%

Assignments will be specified in class.

Course Calendar:

The calendar is subject to change. Upcoming class schedules and due dates for assignments will be reviewed at the end of each class. This class will be a pilot for a mix of “classroom” and “virtual learning”. Some classes that primarily focus on presenting material will be held “on-line” in Blackboard. For those weeks noted as “on-line” in the schedule, we will not be meeting but instead you are to review the material on Blackboard. For weeks noted as “Classroom”, you will be expected to attend class on campus. These classes will be focused on discussions and “hands-on” activities.

The material will be reviewed in the following order:

Class #	Topics	Textbook Reading
1	Class Overview, Manufacturing Matters, Factory Physics® -- Operations Strategy and Logistics Design; Project Management;	Syllabus, Chapters 1 and 7
2	Present Case 1 – Operations Strategy; Demand Forecasting and Quality	Chapter 0, 6, 19, 12 and 13
3	Basic Factory Dynamics	Chapter 7
4	Variability and Capacity Laws	Chapters 8 and 9
5	Quiz 1 Review	
6	Quiz 1	
7	Inventory	Chapter 2
8	Case 2 – Principles in Practice Workshop	
9	Historical approach: planning and control	Chapters 3-5
10	Factory Physics Framework for planning and control	Chapters 13-19
11	Sustainability, The Human Element in Operations	
12	Case 3 – The Rosemount Vortex Flowmeter Case; Quiz 2 Review	
13	Quiz 2	