Inter American University of Puerto Rico  
Metropolitan Campus  
School of Management  
B.B.A. Program in Operations Management  

Course Syllabus

I. GENERAL INFORMATION

Course Title: Operations Management  
Code and Number: BADM-4800  
Credit Hours: 3 credits  
Academic Term:  
Professor:  
Office Hours:  
Office Telephone:  
E-mail: 

II. DESCRIPTION

Principles and methods of production and operations management. Organization and operation of an industrial enterprise, planning techniques, control management; application of these principles and methods to business activities. 
COURSE PREREQUISITE: BADM-4300

III. OBJECTIVES

At the end of the term the student will:

1. Be able to use the concepts of Administrative Theory, models and mathematical techniques in operations decision making related to planning, organizing, control and management of corporate resources use in the Operation Function.
2. Understand the importance of the ethical aspects and social responsibility in the management process of an operation.
4. Be able to apply quantitative and qualitative forecasting methods to control the utilization of resources related to the Operations Function.
5. Be able to apply quantitative quality tools in both production and services to reduce process variations.
7. Be able to use weighted quantitative methods to determine a facilities location.
8. Understand the types of production layouts and the quantitative methods to increase productivity of the production line.
9. Understand the inventory EOQ and POQ models
10. Understand the TQM and JIT concepts.

IV. COURSE CONTENT

Module #1
Introduction the Course
Operations and Productivity
  What is Operations Management?
  Organizing to Produce Goods and Services
  Why study OM?
  What Operation Managers Do?
  Operations in the Service Sector
  Trends in OM
  The Productivity Challenge
    Productivity Measurement
    Productivity Variables
  Ethics and Social Responsibility

Operations Strategy in a Global Environment
  A Global View of Operations
  Developing Missions and Strategies
    Mission
    Strategy
  Achieving Competitive Advantage
    Competing on Quality
    Competing on Cost
    Competing on Flexibility
    Competing on Time

Forecasting
  What is Forecasting?
  Forecasting Time Horizons
  The influence of Product Life Cycle
  Types of Forecasting
  The Strategic Importance of Forecasting
  The Seven Steps in Forecasting System
  Forecasting Techniques
    Qualitative Methods
      Jury of Experts
      Delphi Method
      Sales Force Composite
      Consumer Market Survey
    Quantitative Methods
      Time Series
        Naïve approach
        Moving averages
        Weighted moving averages
        Single Exponential Smoothing
Double Exponential Smoothing
Causal Model
Line regression
Seasonal Variations
Cyclical Variations
Measuring Forecasting Errors
MAD
MSE
MAPE
Tracking Signal

Module #2
Design of Goods and Services
Goods and Services Selection
Generating New Products
Product Development
Issues for Product Design
Robust Design
Modular Design
CAD
CAM
Virtual Reality Technology
Ethics, Environmentally-Friendly Designs, and Sustainability
Defining a Product
Product Life-Cycle Management (PLM)
Application of Decision Trees to Product Design

Managing Quality
Defining Quality
Cost of Quality
Ethics and Quality Management
International Quality Standards
ISO-9000
Total Quality Management
Continuous Improvement
Six Sigma
Reengineering
Employee Empowerment
Benchmarking
JIT
Taguchi Concepts
Tools of TQM
Check Sheets
Scatter Diagrams
Cause and Effect Diagrams
Pareto Charts
Flowcharts
Histograms
Statistical Process Control
   Average and Range Chart
   Median and Range Chart
   Process Capability

**Process Strategy**

Four Process Strategy
   Process Focus
      Process Focus
      Repetitive Focus
      Product Focus
      Mass Customization Focus

Process Analysis Design
   Flowchart
   Process Chart

Service Process Design

Production Technology

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**Module #3**

**Location Strategy**

The Strategic Importance of Location
Factors that Affect Location Design
   Labor Productivity
   Exchange Rate and Currency Risks
   Costs
   Political Risk, Values and Culture
   Proximity to Markets
   Proximity to Suppliers
   Proximity to Competitors

Methods of Evaluating Location Alternatives

Service Location Strategy

**Layout Strategy**

The Strategic Importance of Layout Design
Types of Layouts
   Office Layouts
   Retail Layouts
   Warehousing and Storage Layouts
   Fixed Position Layout
   Process Oriented Layout
   Work Cells
   Repetitive and Product Oriented Layout

**Inventory Management**

Importance of Inventory
Managing Inventories
   ABC Analysis

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Chapter 7

Chapter 8

Chapter 9

Chapter 12
Inventory Models for Independent Demand
EOQ
POQ
Reorder Points
Quantity Discount Models

V. ACTIVITIES

1) After completing the lectures for each chapter a series of Homework Problems and Questions must be completed.
2) A series of Videos will be available after the end of each chapter

VI. EVALUATION

Grading Criteria

3 Partial Examinations (45%)
1 Final Examination (25%)
Assigned Homework (20%)
Attendance and Participation (10%)
Total Points (100%)

Grading Scale
100 - 90 A
89 - 80 B
79 – 70 C
69 - 60 D
59 and below F

VII. SPECIAL NOTES

A. Special Accommodations

Students who require special accommodations must request these services at the beginning of the course as soon as they notice that they need help. Students can access this service with Professor Jose Rodriguez, Coordinator of Students with Special Needs at the Guidance and Counseling Office on the first floor at Metro’s Student Center.

B. Plagiarism

Plagiarism, dishonesty, fraud and any other type of manipulation or inappropriate behavior related with academic performance are unacceptable in our institution. Disciplinary actions will be taken on students found guilty of such practice as
established in Chapter V, Article 1, Section B.2 of the Student’s Rules and Regulations handbook.


Inter American University has very strict regulations regarding plagiarism (using the ideas or words of others without giving proper credit), so it is important that you specifically read Chapter 5, Article 1, Section B.2c of the Student’ Rules and Regulations Handbook. This section clearly explains what plagiarism is. In addition, it explains the types of sanctions students are exposed to when they commit it.

C. Use of Electronic Devices

Cellular (mobile) telephones and any other electronic device that could interrupt the teaching-learning process or disrupt a milieu favorable for academic excellence will be deactivated. Critical situations will be dealt with in an appropriate manner. The use of electronic devices that permit the accessing, storing or sending of data during tests or examinations is prohibited.

VIII. EDUCATIONAL RESOURCES

Required Texts for Class:


Reference Texts


IX. BIBLIOGRAPHY


Organizations:


APICS The Association for Operations Management. [www.APICS.org](http://www.APICS.org)

Production and Operations Management Society. [www.poms.org](http://www.poms.org)

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