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
Operational 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
Chapter 5
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
Chapter 6
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

*Chapter 7*

**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

*Chapter 8*

**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

*Chapter 9*

**Inventory Management**

        Importance of Inventory
        Managing Inventories
            ABC Analysis

*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

<table>
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<tr>
<th>Component</th>
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<tr>
<td>3 Partial Examinations</td>
<td>(45%)</td>
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<tr>
<td>1 Final Examination</td>
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<tr>
<td>Assigned Homework</td>
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<tr>
<td>Attendance and Participation</td>
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<tr>
<td><strong>Total Points</strong></td>
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Grading Scale

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<td>79 – 70</td>
<td>C</td>
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<td>69 - 60</td>
<td>D</td>
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<td>59 and below</td>
<td>F</td>
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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).


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