I. GENERAL INFORMATION

COURSE TITLE: Introduction to Industrial Management
CODE AND NUMBER: BADM-6100
CREDITS: Three (3)

II. DESCRIPTION

Principles related to the effective use of the factors of production in manufacturing and non-manufacturing activities. Study of production organization and methods, facilities and the design of control systems of production operations. Three credits

III. OBJECTIVES

All the end of the term the student should have the following exit competencies

1. Students should have a basic understanding of quantitative methods, managerial statistics, business management and organizational theory.

2. Put operations management system in perspective by recognizing the inputs, transformation process, desired outputs and feedback loop of a system.

3. Know the differences between strategic decisions, design decisions and operational decisions.

4. Know how management of operations can effectively contribute to productivity improvement and to understand the importance of value driven management.

5. Know various functional areas of an organization and their critical integrated role in the performance of the organization.

6. Know the differences between manufacturing and service organizations and the differences between designing production and service systems.

7. Know the concept of competitive priorities and the need to control operational costs as a way for the business organization to compete.
8. Know the differences between various production systems in terms of production volume and customization.

9. Know the basic concepts of Scheduling and Human Resources elements related to POM.

10. Know the important role of manufacturing, service, and information technologies in competitive position of the organizations.

11. An understanding of the basic analytical principles used in production and operations management.

IV. COURSE CONTENT

1. INTRODUCTION TO OPERATIONS AND COMPETITIVENESS
   A) What is Operation Management?
   B) Differences between Manufacturing and Service Organizations
   C) Historical Development
   D) OM Decisions
   E) Today’s OM environment
   F) OM in practice

2. OPERATIONS STRATEGY AND COMPETITIVENESS
   A) Role of Operation Strategy
   B) Developing Business Strategy
   C) Developing Operations Strategy
   D) Productivity
   E) Operations Strategy across the Organization
   F) The link to Supply Chain

3. FORECASTING
   A) Principles of Forecasting
   B) Steps in the Forecasting Process
   C) Types of Forecasting Methods
      a) Qualitative
      b) Quantitative
   D) Time Series Models
      a) Forecasting Level or Horizontal Pattern
      b) Forecasting Trend
      c) Forecasting Seasonality
   E) Causal Models
      a) Linear Regression
      b) Correlation Coefficient
   F) Forecasting Accuracy
      a) MAD / MSE / MAPE
      b) Tracking Signal
   G) Case Study in Forecasting

4. PRODUCT DESIGN AND PROCESS SELECTION
   A) Product Design Process
   B) Factors Impacting Product Design
5. **TOTAL QUALITY MANAGEMENT**
   A) Defining Quality
   B) Cost of Quality
   C) TQM Philosophy
   D) The Quality Award Standard
   E) QC and Supply Chain Management the Link with Suppliers
   F) Trends in Quality Control across the organization

6. **STATISTICAL QUALITY CONTROL**
   A) What is Statistical Quality Control?
   B) Sources of variations – Natural and Assignable Causes
   C) Descriptive Statistics
   D) SPC Method
   E) Control Charts for Variables
   F) Control Charts for Attributes
   G) Process Capability
   H) Six Sigma
   I) Acceptance Sampling
   J) SQC in Services
   K) Implications for management

7. **JUST-IN-TIME AND LEAN SYSTEMS**
   A) Philosophy of JIT
   B) Elements of JIT
   C) JIT Manufacturing
     a) Push / Pull / Pull One system
     b) Kanban
     c) Small Lot sizes
     d) Quick Setups
     e) Poka Yoke
     f) Uniform Plant Loading
     g) Flexible Resources
     h) Facility Layout
   D) JIT in Services
   E) TQM – product vs process
   F) The Supply Chain Link

8. **CAPACITY PLANNING**
   A) Measuring Capacity
   B) Capacity Considerations
   C) Making Capacity Planning Decisions
   D) Decision Trees
   E) Location Analysis
   F) Making Location Decisions
   G) The Supply Chain Link
V. ACTIVITIES

A. Lectures
B. Case Studies
C. Supplementary readings
D. Internet searches
E. Audiovisual Support: PowerPoint presentations, videos
F. Presentation and discussion of relevant academic journal or trade journal articles

VI. EVALUATION

Required activities to achieve course objective should include various pedagogical activities such as, homework, presentations, short quizzes, partial examinations and interactive participation. It is highly recommended the utilization of the Blackboard platform as a support system for the course. Assessment techniques should be applied at professor discretion.

Recommended Evaluation:

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<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>2 Partial Examinations</td>
<td>(40%)</td>
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<tr>
<td>Homework</td>
<td>(35%)</td>
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<tr>
<td>Case studies</td>
<td>(15%)</td>
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<tr>
<td>Attendance &amp; Participation</td>
<td>(10%)</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>(100%)</strong></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. RESOURCES

a) Required Textbook


b) Audiovisual and Information Technology

Campus On-line Services at - http://cai.inter.edu/

- ProQuest
- Infotrac (Database)
  - Business and Company Resource Center
  - General Business File Internacional
  - Expanded Academic ASAP

IX. BIBLIOGRAPHY


Organizations:

2) APICS The Association for Operations Management. [www.APICS.org](http://www.APICS.org)
3) Production and Operations Management Society. [www.poms.org](http://www.poms.org)

*REVISED 1/2016*