**Course Title : Operations management**

**Course Code : MBA 4062**

**Module Name : Management Science and operations management**

**Module Number : MBA M06**

**Instructor : Dr. Manju Shree**

**Office Room Number : 2**

**Course Description**

Operations management the heart of all management disciplines which bring competitive advantage and market focus for all business organization. Thus, the course covers meaning of operations and production management, operations management as competitive weapon, product and service design, quality and quality control, capacity planning, location decision, layout decision, aggregate planning, scheduling, work design, and time-based operations.

**Course Objectives**

* Define operations management
* Understand operations strategy and competitiveness
* Understand facility location and layout
* Plan capacity plans
* Differentiate aggregate planning and scheduling
* Describe operations management, its scope and activities
* Describe the decision involved in designing and controlling the operations system.
* Apply selected quantitative tools, techniques and models in the analysis of decisions for the designing, planning and controlling of operation systems.

***Schedules of Lecture Topics and Reading Materials***

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| **Lecture**  **(hours)** | **Topic of the Lecture** | **Reference Materials** |
| Chapter One: NATURE OF OPERATIONS MANAGEMENT | | |
| 6hrs | 1.1. Introduction  1.2. Historical Development of Operation Management  1.3.Manufacturing Operations and Service Operations  1.3.1 Manufacturing Operations   * + 1. Service Operations   1.4. Operations Decision Making  1.5.Productivity Measurement | * Wild Ray (1995), Production and Operation Management, 5th Edition, Cassell. * Dilworth, James R (1993), Production and Operation Management, 8th Edition, |
| Chapter Two: OPERATIONS STRATEGY & COMPETITIVENESS | | |
| 12hrs | 2.1 Introduction to operations strategy  2.2 Operations strategy in Manufacturing  2.3 Operations strategy in Services | * Dilworth James B (1993), Production/OperationManagement ­Manufacturing and Services. 5th Edition, West Publishing. |
| Chapter Three: DESIGN OF THE OPERATION SYSTEM | | |
| 12hrs | 3.1 Product and service design  3.2 Process planning and selection  3.3 Strategic Capacity Planning  3.4 Facility Location & layout  3.5 Job design and work measurement | * Wild Ray (1995), Production and Operation Management, 5th Edition, Cassell. * Starr, Martin (1996), Operation Management: A Systems Approach, Boyd and Fraser Publishing Company. |
| Chapter Four: OPERATIONS PLANNING & CONTROL | | |
| 6 hrs | 4.1 Demand management and forecasting  4.2 Aggregate production planning  4.3 Master production schedule  4.4 Material requirement planning | * Wild Ray (1995), Production and Operation Management, 5th Edition, Cassell. |
| Chapter Five: QUALITY MANAGEMENT AND CONTROL | | |
| 8hrs | 5.1 Meaning and nature of quality  5.2. Overview of TQM  5.3 Process Control Charts | * Chase, Richard N., Aquilano, Nicholas J. and Jacobs, F. Robert ( 1998), Production and Operations Management- Manufacturing and Services, 8th Edition, Irwin McGraw-Hill |
| **Chapter six: Inventory Management** | | |
| 4 hrs | Inventory Management – Objectives, Factors, Process, Inventory control techniques- ABC, EOQ, Safety stock | * Wild Ray (1995), Production and Operation Management, 5th Edition, Cassell. |
| **Chapter seven : Logistics Management:** | | |
|  | 7.1 Logistics as part of SCM,  7.2 Purchasing & Vendor management | * Adam JrEveretl E. R J – Production and Operations Management (Prentice-Hall, 2000, 5th Edition) |

**Methodology**

The delivery method shall be student-centered. Students are highly expected to participate in class works. Specifically, the course will be delivered through lecture method, reading assignments in-class problem solving and take-home assignments.

**Assessment Methods**

Student evaluation in this course consists of both formative and summative assessments including assignments and final exam.

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| **Assessment method** | **Weight** |
| Assessment -I - (Individual Assignment/ Seminar/case study) | 10% |
| Assessment -II (Group Assignment)- Project work + Presentation | 20% |
| Assessment –III (Test ) | 20% |
| Final Exam | 50 % |
| **Total** | **100%** |

**References**

* Lee J. Krajewski et al, *Operations Management, Process and Supply chains.* 11th Edition Pearson
* Chase, Richard N., Aquilano, Nicholas J. and Jacobs, F. Robert ( 1998), Production and Operations Management- Manufacturing and Services, 8th Edition, Irwin McGraw-Hill
* Wild Ray (1995), Production and Operation Management, 5th Edition, Cassell.
* Starr, Martin (1996), Operation Management: A Systems Approach, Boyd and Fraser Publishing Company.
* Plossl, George W (1985), Production and Inventory Control: Principles and Techniques, 2ed Edition, Prentice Hall.
* Evans, James R (1993), Production/Operations Management: Quality, Performance and Services, 5th Edition, McGraw- Hill
* Dilworth James B (1993), Production and Operation Management ­Manufacturing and Services. 5th Edition, West Publishing.
* Dilworth, James R (1993), Production and Operation Management, 8th Edition, International Thomson Publishing.