

MBAS 455: OPERATIONS MANAGEMENT

Workload : 4 hours per week - Total credits 04

Examination : 3 hours; 30 marks continuous evaluation & 70 marks final examination.

Objectives

1. To familiarize the students with the production process and related issues in industrial Units.
2. To know the aspects like quality, Inventory, Maintenance, materials management; and Methods analysis
3. To have an insight to advanced productivity enhancement.

Course Outcomes

1. Apply principles of value analysis and value engineering to specific operations management situations.
2. Apply different types of charts and diagrams to conduct study of the work and the method.
3. Explaining the need for aggregate planning, and the aggregate planning steps.
4. Illustrate how organizational capacity planning and its relationship to MRP is performed.

Pedagogy Lectures, assignments, practical exercises, discussions, seminars, etc.

Module 1, Introduction: Importance and significance of productivity, Productivity concepts – Macro and Micro factors of productivity, productivity from product and service perspective, different inputs and productivity measures, Various ratios related to finance, material and service.

Module 2, Value Analysis and Value Engineering: Concept of Cost, Price and Value, Role in Productivity, Procedure – Application and productivity benefit model.

Module 3, Work Study: Importance of work study – Method Study and Work Measurement – Pioneers of Performance Measurement. Method Study: Need for Method Study – Procedure of Method Study – Process Flow charts, Man machine diagrams, Principles of Motion Economy.

Module 4, Work Measurement: Techniques of Work Measurement including Estimating, Stopwatch Time Study, Predetermined Time Standards, Synthetic Estimates of Work, Times, Activity Sampling. Computation of Standard Time – Elements–Types of Elements–Performance Rating–Allowances–Need for Allowances–Types of Allowances.

Module 5, Planning & Control of Operations: Need, Functions - Routing, Scheduling, shop loading and dispatch, follow up. Relations with other departments, Routing-Process layout indicating flow Chart of material from machine to machine. Dispatch in production control-documentation.

Module 6, Demand Forecasting: Forecasting as a planning tool, why do we forecast, Forecasting time horizon, Design of forecasting systems, Developing the logic of forecasting, Sources of data, Models for forecasting, Extrapolative methods using time series, Causal methods of forecasting, Accuracy of forecasts, Using the forecasting system.

Module 7, Aggregate Production Planning: Planning Hierarchies in operations, Aggregate

Production planning, need for Aggregate Production planning, Alternatives for managing demand, Alternatives for managing supply, Basic strategies for aggregate production planning, Aggregate production planning methods, Master Production Scheduling.

Module 8, Resources Planning: Dependent Demand Attributes, planning a framework – the basic building blocks: Multiple levels in products, Product Structure, The Bill of Materials, Time phasing of the requirements, Determining the Lot Size, Incorporating Lead time information, Establishing the planning premises. MRP Logic, Using the MRP system, Capacity Requirements planning, Manufacturing Resources Planning (MRP II), Enterprise Resource Planning (ERP), Resource Planning in services.

Module 9, Scheduling of Operations: Need for Scheduling, Scheduling – Alternative terms, loading of machines, Scheduling Context, Scheduling of Flow Shops, Scheduling of Job Shops, Input-Output Control, Operational Control Issues in Mass production systems.

Module 10, Advanced Methods of Productivity and service level enhancements: Overview of JIT, Lean, 5S, TPM, BPR, Six Sigma, World Class manufacturing, Use of Technology in productivity and service enhancements: ITeS, CAD, CAM, CIM, CMMI.

Reference Books:

1. Productivity Measurement for Business Excellence, Premvrat, G.D. Sardana, B.S. Sahay, Narosa Publishing House.
2. Operations Management for Competitive Advantage, Richard B Chase, Jacobs, Aquilano, Agarwal,
3. Introduction to Work Study, Editor – George Kanawaty, Universal Publishing
4. Production and Operations Management, S.N. Chary, TMGH
5. Operations Management: Theory and Practice, B Mahadevan, Pearson.
6. Operations Management, Terry Hill, Palgrave
7. The Fundamentals of Production Planning and Control, Stephen Chapman, Pearson
8. Operations Now, Byron Fitch, TMGH.
9. Gopalakrishnan and Sundareshan - Material Management - An integrated approach. - PHI
10. Adam and Erbert - Production and Operations Management- PHI
11. Krajewski and Ritzman - Operations Management, Strategy and Analysis-Addison Wesley
12. P.B Mahapatra - Computer aided production Management-PHI
13. Render and Heizer - Production and Operations Management-PHI
14. Buffa - Modern Production Management- John Willey & Sons

MANGALORE



UNIVERSITY

Mangalagangothri – 574199

DEPARTMENT OF BUSINESS ADMINISTRATION

in Association with

Internal Quality Assurance Cell (IQAC), Mangalore University

United Nations Development Programme (UNDP)

Seventh Sense People Development Solutions Pvt Ltd

Organizes

6 Days UNDP Entrepreneurship Development Training Program

06 December, 2021 to 11 December, 2021

Cordially Invite you to the
INAUGURAL FUNCTION

***Dr. P Subrahmanya Yadapadithaya**
Hon'ble Vice Chancellor, Mangalore University
Will inaugurate*

***Ms. Deeksha N**
Mr. Keerthanraj T. S
Mr. Ashwin Kumar
District Community Mobilizers and EDP Trainer*

Seventh Sense People Development Solutions Pvt Ltd and Inquilab Inventions Foundations

***In the Presence of**
Prof Manjunatha Pattabi
Director, IQAC
Mangalore University
And
Prof. Puttanna K
Chairman
Department of Business Administration
Mangalore University*

Date: 6th December, 2021

Time: 09.00 AM

Venue: MBA Seminar Hall

MANGALORE UNIVERSITY

6 Days UNDP Entrepreneurship Development Training Program

06 December, 2021 - 11 December, 2021

Report



6 Days UNDP Entrepreneurship Development Training Program was organised in the department in association with Internal Quality Assurance Cell (IQAC), Mangalore University, United Nations Development Programme (UNDP) and Seventh Sense People Development Solutions Pvt Ltd on 06 December, 2021 - 11 December, 2021.

The workshop was inaugurated by Prof. Puttanna. K, Chairman of the department and Mr. Keerthanraj T. S, District Community Mobilizer, Seventh Sense People Development Solutions Pvt Ltd. Experts from Seventh Sense People Development Solutions Pvt Ltd trained our participants on various issues relates to social entrepreneurship. They used both lecture and activity methods to train the participants. Their lecture covered broad aspects relates entrepreneurship.

Three resource persons Mr. Keerthanraj T. S, Ms. Deeksha N and Mr. Ashwin Kumar from Seventh Sense Sense People Development Solutions Pvt Ltd trained the participants. 61 students and 10 faculty members participated in the program. Certificate of participation is issued to all the participants on successful completion the training.