SANKALCHAND PATEL UNIVERSITY
।। अथातो ज्ञानजिज्ञासा ।।

FACULTY OF MANAGEMENT STUDIES

Master of Business Administration (Sem.-II)
Effective from Academic Year 2016-17

Subject Code: 1MS2010202	Subject Title: Manufacturing and Operations Management

1. Course Objectives and Outline:

This course examines the functional area of production and operations management in the manufacturing industry. This course focuses on the role of operations management as a strategic element of the total organization. We will cover classic and up-to-date tools and concepts used to support operational managerial decisions. Topics include decision-making, facility location and layout planning, aggregate production planning, inventory management, project management, waiting line analysis, and modern production concepts. This course is designed for students to develop an understanding of the strategic importance of manufacturing supply chains and how operations can provide a competitive advantage in the marketplace.

2. Teaching Scheme (Hours per week)

Lecture (Hrs.)	Tutorial	Practical	Credit	Evaluation Scheme (Marks)		Total
				University Assessment	Continuous Assessment	
3	1	-	4	60	40	100

3. Syllabus

Module No.	Contents	Total Hours	Weight
1	• Essentials of Manufacturing Management • Product Development & Process Selection • Manufacturing Systems Classification • Facilities Location & Layout Planning • Assembly Line Balancing	12	25%
2	**Aggregate Production Planning:** -Need for Aggregate Production Planning, Basic strategies for Aggregate Production Planning, Aggregate Production Planning Methods, **Inventory Management** -An Overview of Material Management -Managing Inventory of Independent Demand Items (EOQ, Quantity Discounts, ABC Analysis) **Safety Management**	12	25%
3	**Project Management** -CPM, PERT, Crashing of Network **Scheduling** -Need for Scheduling, Single Machine Scheduling, Scheduling of Job Shops	12	25%

4	**Waiting Line Analysis(Queuing)** -Elements of Waiting Line, Waiting Line Analysis & Quality, Single Server Models **Transportation Problems** **Advanced Manufacturing Systems** -Introduction to JIT, TQM, Six Sigma, Kanban, Kaizen	12	25%

4. Course Pedagogy

Pedagogy for this course includes lectures, class discussions, homework assignments, assigned readings, films and videos, field visits and case studies to provide an overview of the field of manufacturing and operations management. Students are required to read the assigned material prior to each lecture and participate in the class discussion of the lecture. Apart from this students have to participate in group work assigned like case studies, presentations and laboratory work as that will be part of their continuous evaluation.

5. Suggested Readings

a. Books

Sr. No.	Books
1	Production and Operations Management, By R Panneerselvam, Prentice-Hall India
2	Production and Operations Management, By Kanishka Bedi, Oxford Higher Education
3	Quantitative Techniques in Management, By N.D. Vohra, The McGraw-Hill
4	Operations Management-Quality and Competitiveness in a Global Environment, By Russell & Taylor, Wiley-India Edition

b. Journals/Magazines

- Journal of Operations Management, ELSEVIER
- International Journal of Operations & Production Management
- International Journal of Supply and Operations Management

c. Web-Links

- http://eaindustry.nic.in/home.asp
- http://business.mapsofindia.com
- http://www.sas.com/en_th/software/analytics/sas-or.html
- http://www.coin-or.org/

6. Evaluation Scheme

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Sr. No.	Component	Weight
1	**University Examination**	**60%**
2	**Internal Assessment** -Depending on the need and objectives of the subject, internal assessment should include minimum three of the following sub-components; *Class Test, Quiz, Assignments, Case Presentation, Class Participation, Projects, Team/Individual Assignments.* -The weightage of a sub-component should not exceed 50% of internal assessment component weight. - The bifurcation of sub-components shall be communicated by the instructor before commencement of the academic sessions.	**40%**