Elective Course 5: Productivity Management

Course Type:	PS: Program Specialisation	Course Credits:	2
Course Code:	O3SE513	Course Duration:	30 Hours

Course Objectives:

- Understand importance, scope and application of productivity
- Understand linkage of productivity concept from individual, department wise & functional areas, sectors of economy, national and international economy.
- Various approaches, measurement of productivity planning & condition improvement as one of the competitive dimension in any business. Productivity as a system approach.

Course Outcomes:

- CO1: Understand the basic concepts and importance of productivity in different areas.
- CO2: Analyze various models and techniques used to improve productivity
- CO3: Apply productivity tools like Lean, ERP, TQM, and work study in real-life situations
- CO4: Apply creative thinking and ergonomic methods to solve workplace productivity problems

Sr. No.	Content	CO Mapping	Hours Assigned
1	Concept of productivity application in Manufacturing and service industries and different functional areas.	CO1	3
2	Measurement of productivity. Understanding improvement cycle importance of measurement like partial total factor multifactor and their applications for analysis measurement of resource production.	CO1	3

3	Various models of productivity 1. Sumanths total productivity model 2. Sumanths five pronged model 3. American productivity model 4. Sink Multi factor model 5. Application by numerical.	CO2	3
4	Various Approaches to production. 1. Classic ILO approach 2. Kaizen/TQC approach 3. Elimination 3 MV approach 4. Participative/ Involvement 5. Creativity based	CO1 CO2	3
5	Application of new/old techniques lectures of productivity improvement & application in all area of management. 1. JIT & Lean type of production system 2. MRPI & MRPII, ERP. 3. TQM ISO quality systems. 4. B.P.R	CO1 CO3	2
6	Learning curves. Concept, application, Quantitative, estimation, limitation	CO1 CO3	2
7	Incentives 1. Financial 2. Non-financial 3. Various incentive schemes based on the group, profit sharing systems 4. Result oriented schemes 5. Calculation of incentive index	CO1 CO3	2
8	Work study 1. Method study 2. Motion & Time study 3. Works measurement 4. Objectives, method, application	CO1 CO3	2

9	Value analysis & Value Engineering. 1. Concept 2. Difference 3. Procedure used 4. Importance in today's business environment 5. Various application functional areas for product process and system.	CO1 CO3	2
10	People/ Enrolment/ Participation 1. Quality circles 2. Group kaizen 3. Suggestion schemes 4. Suggestion schemes 5. Small group involvement	CO1 CO3	2
11	Recent production improvement techniques & applications. Use of various ratios to Determine improvement in productivity.	CO1 CO3	2
12	Creative based techniques 1. Brain storming 2. Whole brain thinking 3. Nominal group 4. Use in creative problem solving with practical application	CO1 CO3	2
13	Ergonomics 1. Concept design of work place to suit human being use of anthropometric data principles of motion economy effect of environment of productivity 2. Design of work stations use in connection with process observation. 3. Concept of muri (non value adding string & its limitation	CO1 CO4	2

Textbooks:

1. Productivity Technique, Dr Uday Salunkhe & Dr Srinivas Gondhalekar
2. TQM, Shridhar Bhat

3. Productivity Technique, Shirke