CH221	PROCESS ECONOMICS AND INDUSTRIAL MANAGEMENT	L	T	P	C	Int	Ext
		2	-	-	2.0	30	70

Semester IV [Second Year]

COURSE OBJECTIVES:

1. To provide the student with an insight on the various principles, concepts and functions of General management and Economics with thrust on Industrial Management, to enable him/her to take up employment or pursue higher degree
2. To provide student with an ability to integrate knowledge about various production systems, functions and controlling techniques
3. To enable the student to demonstrate the thorough working knowledge about Industrial Management and various functional areas of Management
4. To motivate the student for Entrepreneurship activities

COURSE OUTCOMES:

After successful completion of the course, the students are able to

1. Gain insight on contemporary issues in General and Industrial Management.
2. Identify, analyse and interpret various concepts of Finance, systems of production to enable the student to meet the needs of Industry.
3. Understand the impact of various Industrial Management solutions and techniques with focus on economic, environmental and societal context.
4. Recognition of the need and ability to engage in perpetual learning.

UNIT I [CO:1] **(12)**

Interest & Depreciation: Time value of money, interest discrete and continuous, Depreciation and depletion.

Cost: Cost concepts, capital costs for process plants, estimation of production cost, cost indices, cost accounting and process costing.

Profitability: Profitability analysis, comparison of alternative investments and replacements.

UNIT II [CO:2] **(12)**

Production system: Operation Managerâ€™s activities, types of operations, classification of production system, manufacturing and service units, mass production and batch production systems.

Work: Work study, motion study

Production: Production Planning and control, forecasting, functions under PPC.

UNIT III [CO:3] **(12)**

Management: Principles and functions of management.

Forms of Business Organizations: Sole trader, partnership, company form of business organization.

Organization: Organization chart, principles of organization, types of organization, line and staff functions.

UNIT IV [CO:4] **(12)**

Inventory Control: Reasons for inventory control, analytical treatment and Inventory control techniques.

Operations Research: Problem formulation, linear programming, simplex and graphical solutions. Introduction to Marketing Management.

LEARNING RESOURCES:

TEXT BOOK(s):

1. Plant Design and Economics for Chemical Engineers, Peters. M. S. and Timmerhaus, K.D., 5th edition, McGraw Hill, (Unit - I).
2. Industrial Management and Operations Research, K. K. Ahuja, Khanna Publishers, New Delhi (Unit - II, III, IV).

REFERENCE BOOK(s):

1. Engineering Economics, Paneerselvam, PHI
2. Essentials of Management, Koontz and Oâ€™Donnel, McGraw Hill.
3. Works Organization and Management, K.C. Sahu, N.K.Dutta, Oxford publications.