

UTKALMANI GOPABANDHU INSTITUTE OF ENGINEERING, ROURKELA



DEPARTMENT OF CHEMICAL ENGINEERING

LESSON PLAN

Semester-5th

**SUBJECT- ENTREPRENEURSHIP AND MANAGEMENT & SMART TECHNOLOGY
(TH-1)**

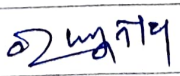
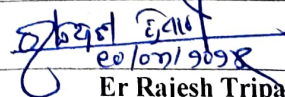
PREPARED BY- RAGHUNATH MARANDI

	Topics covered
WEEK 1	Concept /Meaning of Entrepreneurship
	Need of Entrepreneurship
	Characteristics, Qualities and Types of entrepreneur, Functions
	Barriers in entrepreneurship
WEEK 2	Entrepreneurs vs. Manager, Forms of Business Ownership: Sole proprietorship, partnership forms and others
	Types of Industries, Concept of Start-ups
	Entrepreneurial support agencies at National, State, District Level (Sources): DIC, NSIC, OSIC, SIDBI.
WEEK 3	Entrepreneurial support agencies at National, State, District Level (Sources): NABARD, Commercial Banks, KVIC
	Technology Business Incubators (TBI) and Science and Entrepreneur Parks
	REVISION
WEEK 4	Business Planning
	SSI, Ancillary Units, Tiny Units, Service sector Units
	Time schedule Plan, Agencies to be contacted for Project Implementation
	Assessment of Demand and Potential areas of Growth
WEEK 5	Assessment of supply and Potential areas of Growth
	Identifying Business Opportunity
	Final Product selection
	REVISION
WEEK 6	Preliminary project report
	Detailed project report
	Techno economic Feasibility of project
	Project Viability
WEEK 7	Definitions of management

	Principles of management
	Functions of management (planning, organizing, staffing)
WEEK 8	Functions of management (directing and controlling etc.)
	Level of Management in an Organization
	Production management, Functions, Activities
WEEK 9	Productivity, Quality control
	Production Planning and control, Inventory Management, Need for Inventory management
	Functions of Financial management
WEEK 10	Management of Working capital
	Brief idea about Accounting Terminologies
	Marketing Management
WEEK 11	Concept of 4P s (Price, Place, Product, Promotion)
	Human Resource Management
	Functions of Personnel Management. Manpower Planning, Recruitment, manpower
WEEK 12	Definition, Need/Importance, Qualities, functions of a leader
	Manager Vs Leader, Style of Leadership
	Definition and characteristics, Importance of motivation
	Factors affecting motivation, Theories of motivation (Maslow)
WEEK 13	Methods of Improving Motivation
	Importance, Types, Barriers of Communication in Business
	Human relationship and Performance in Organization
WEEK 14	Relations with Peers, Superiors and Subordinates
	TQM concepts: Quality Policy, Quality Management, Quality system
	Accidents and Safety, Cause, preventive measures
	General Safety Rules, Personal Protection Equipment (PPE)
WEEK 15	Intellectual Property Rights (IPR), Patents
	Trademarks, Copyrights
	Features of Factories Act 1948 (only salient points)
	Features of Factories Act 1948 with Amendment (only salient points)
WEEK 16	Features of Payment of Wages Act 1936 (only salient points)
	REVISION
	Concept of IOT
	Components of IOT, Characteristics of IOT
WEEK 17	Categories of IOT
	Applications of IOT- Smart Cities, Smart Transportation
	Applications of IOT- Smart Home, Smart Healthcare
	Smart Industry, Smart Agriculture, Smart Energy Management

BOOKS FOR REFERENCE:

- Chemical Technology by C Dryden, Tata Mc Grawhill Publication
- Chemical Process Industries by N Shreeve, Tata Mc Grawhill Publication

	Prepared by	Approved by
Signature		 20/07/2025
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