

Lesson Plan For
Environmental Science (2022-23)
Department of Metallurgical Engineering
UGIE Rourkela

Discipline: **Metallurgical Engineering**

Subject: **Environmental Science**

Semester: **6th**

Total Period allotted: **60**

Period per week: **4**

Name of the Teaching Faculty: **Amarjit Mohanta**

Week	Class No		Lecture Topics
1	1	Entrepreneurship	Concept /Meaning of Entrepreneurship
	2		Need of Entrepreneurship
	3		Characteristics, Qualities and Types of entrepreneur, Functions
	4		Barriers in entrepreneurship
2	5		Entrepreneurs vs.. Manager
	6		Forms of Business Ownership: Sole proprietorship
	7		partnership
	8		Types of Industries, Concept of Start-ups
3	9		Entrepreneurial support agencies at National, State, District Leve
	10		Technology Business Incubators (TBI) and Science

			and Technology Entrepreneur Parks
	11	Market Survey and Opportunity Identification	Business Planning
	12		SSI, Ancillary Units, Tiny Units
4	13		Service sector Units
	14		Time schedule Plan, Agencies to be contacted for Project Implementation
	15		Assessment of Demand and supply and Potential areas of Growth
	16		Identifying Business Opportunity
5	17	Project report Preparation	Final Product selection
	18		Class Test
	19		Preliminary project report
	20		Detailed project report
6	21		Techno economic Feasibility
	22		Project Viability
	23	Management Principles	Definitions of management
	24		Principles of management
7	25		planning, organizing
	26		staffing, directing and controlling
	27		Level of Management in an Organization
	28	Functional Areas of Management	Class Test
8	29		Production management Functions, Activities Productivity

	30		Quality control Production Planning and control
	31		Inventory Management Need for Inventory management Models/Techniques of Inventory management
	32		Financial Management Functions of Financial management Management of Working capital Costing (only concept)
9	33		Break even Analysis
	34		Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts)
	35		Marketing Management Concept of Marketing and Marketing Management Marketing Techniques (only concepts)
	36		Concept of 4P s (Price, Place, Product, Promotion)

10	37		Functions of Personnel Management
	38		Manpower Planning, Recruitment
	39	Leadership and Motivation	Leadership Definition and Need/Importance Qualities and functions of a leader
	40		Manager Vs Leader Style of Leadership (Autocratic, Democratic, Participative)
11	41		Motivation Definition and characteristics Importance of motivation
	42		Factors affecting motivation
	43		Theories of motivation (Maslow)
	44		Methods of Improving Motivation Importance of Communication in Business Types and Barriers of Communication
12	45	Work Culture, TQM & Safety	Human relationship and Performance in Organization
	46		Relations with Peers, Superiors and Subordinates
	47		TQM concepts: Quality Policy, Quality Management, Quality system

	48		Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection Equipment(PPE)
13	49	Legislation	Intellectual Property Rights(IPR)
	50		Patents, Trademarks, Copyrights
	51		Features of Factories Act 1948 with Amendment
	52		Features of Factories Act 1948 with Amendment
14	53		Features of Payment of Wages Act 1936
	54		Features of Payment of Wages Act 1936
	55	Smart Technology	Concept of IOT
	56		How IOT works
15	57		Components of IOT, Characteristics of IOT, Categories of IOT
	58		Applications of IOT- Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc.
	59		Class Test
	60		Revision