

OBJECTIVE

To impart knowledge on occupational health and hygiene and preventive and control measures to be taken at work place to promote efficiency of human resource

SYLLABUS

Occupational Health and Hygiene: Definition; Categories; Exposure pathways; Effects on humans; Occupational health and workers; Reduction strategies for workplace stresses

UNIT SCHEDULE**BLOCK 1: INTRODUCTION TO OCCUPATIONAL HEALTH**

Unit 1: The Occupational Health: Introduction; Scope; Factors causing health hazards

Unit 2: The Occupational Environment: Definition; Criteria; Occupational exposure limits (Threshold limits of factors/ pollutants)

BLOCK 2: WORKPLACE ENVIRONMENTAL FACTORS AND HEALTH

Unit 3: The Categories of Health Hazards: Physical, chemical and biological

Unit 4: Physical Environmental Factors and Occupational Disorders: The physical factors- Temperature, humidity, ionization, UV-radiation and acidity of air; Disorder (s) caused, mechanism of disorder (s) and prevention and control of disorder (s) with reference to human skin, lung, throat, nose, eye and nervous system

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Unit 5: Air-borne Bio-allergens: Definition; Types; Distribution; Factors governing their availability; Modes of dispersal; Disorders caused in humans; Diseases intensity; Prevention and control of disorders

Unit 6: Climate Change and Human Disorders: The climate change phenomenon; Disorders caused to humans in tropical, temperate and high- elevational regions; control of disorders

Unit 7: Chemical-induced Human Disorders: The chemicals as environmental factors; Disorder(s) caused; Mechanism of disorder(s); Prevention and control of disorder(s) (caused by mercury, lead, chromium, cadmium, nickel, arsenic and nitrates)

Unit 8: The Drug-induced Human Disorders: The drug as disorder factor; Drug reaction; Control of drug reaction

Unit 9: Water-induced Human Disorders: The disorders- causes, effects and mechanisms; Prevention and control of disorders

Unit 10: The Psychological Stresses: Workplace-specific psychological stresses, mechanism and control

BLOCK 3: INDUSTRY-SPECIFIC OCCUPATIONAL HEALTH DISORDERS

Unit 11: Occupational Health and Workers: Measures for health; Health education; Medical first-aid; Management of medical emergencies; Epidemiological approaches

Unit 12: Occupational Health Disorders in Practice I: Case study of industries, viz., Pulp and Paper; Textile; Distillery

Unit 13: Occupational Health Disorders in Practice II: Construction; Steel

Unit 14: Occupational Health Disorders in Practice III: Food processing; Dairy and Pharmaceuticals

SUGGESTED READINGS

Occupational Safety and Health for Technologists: Engineers and Managers- D.L. Goetsch, Prantice-Hall India P.Ltd., New Delhi.

Environmental and Industrial Safety- A.H. Hommadi, I.B. Publishers, New Delhi.

Safety and Environmental Management- D.E. Della and P. Giustina, Van Nostrand Ronald International Thomson Publishing Inc., New Delhi.

Handbook of Environmental Strategies- R.V. Kolluru, McGraw Hill Inc., New Delhi.