

CE/BOS/OE408/0210

K L UNIVERSITY

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT (09 – OE408)

SYLLABUS

UNIT – 1 INTRODUCTION

Importance and need for development of safety consciousness in Indian Chemical Industries - Psychological attitude towards safety programs, Elements of Safety Program, Effective Realization, Economic and Social Benefits from Safety Program- effective communication training at various levels of production and operation.

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UNIT – 2 INDUSTRIAL SAFETY

Chemical process Industries - First degree and second-degree hazards. Lines of defense-first, second and third line defense-chemical and physical job safety analysis-high pressure - high temperature operation-dangerous and toxic chemicals-highly radio active materials-Safe handling and operation of materials and machineries planning layout-safety slogans. Safety in construction operations

UNIT – 3 SAFETY PROGRAMS IN INDUSTRIES

Effective steps to implement safety procedures-Periodic Advice and checking to follow safety procedures and rules-proper selection and replacement of handling equipment-personnel safety and protective equipment.

UNIT – 4 ACCIDENTS

Industrial accident costs-Identification of accident spots, Remedial measures, Identification and analysis of causes of injury to men and machineries- Accident prevention -accident proneness-vocational guidance, fire prevention and fire protection.

UNIT – 5 HEALTH HAZARD

Hazard identification and Assessment-involvement of human factors and errors-occupational and industrial health hazards.Role of Government, Safety Organization, Management and trade unions in promoting industrial safety-On-site and Off-site safety provisions.

TEXT BOOKS

1. Krishnan, Safety Management in Industry, Jaico Publishers, New Delhi, 1997
2. Anton, Occupational Safety and Health Management, McGraw Hill Book Co., New York, 1998
3. William, Industrial Safety Handbook, McGraw Hill, 2001

REFERENCE BOOKS

1. Fawcett H.H. and Wood W.S., Safety and Accident Prevention in Chemical perations, John Wiley & sons, U.S.A.,1965
2. DA.Crowl & J.F.Louvar, “Chemical Process Safety”, Vol. 2, Prentice Hall, 1980.
3. H.H.Fawcett and W.S.Wood, “Safety & Accident Prevention in Chemical Operations”, 2nd ed., John Wiley and Sons, New York, 1982.
4. R.K.Sinnoot, “Coulson and Richardson’s - Chemical Engineering”, Vol 6, Butterworth - Heinmann Limited, 1996.
5. Roye Sanders, “Chemical Process Safety”, 1st ed., Elsevier, 2007.