

COURSE CODE: ENS-412
COURSE NAME: Environmental Health & Safety
CREDIT HOURS: Theory = 3 Practical = 0 Total = 3
CONTACT HOURS: Theory = 48 Practical = 0 Total = 48
PREREQUISITE: None
MODE OF TEACHING: Three hours of lecture per week

Course Description:

The course will provide information on occupational health and safety as well as it will review various types of work place hazards, their exposure and effects on the body. Focus will be on hazardous chemicals, carcinogens, effects of chemicals acute and chronic health problems related to work and safe use of chemicals at work. Awareness will also be created about the health and safety laws and enforcement, role of health and safety committees at work etc.

TOPICS COVERED:

Week	Topic
1	Introduction to occupational health and safety: Accidents, Disease, Normal working, Health and safety problems worldwide
2	Importance of management and training in occupational health and safety
3	Common workplace associated hazards; biological, chemical, mechanical, physical and psychological hazards and their effects on health and safety, local effects, systemic effects, acute and chronic effects
4	Common workplace associated hazards; biological, chemical, mechanical, physical and psychological hazards and their effects on health and safety, local effects, systemic effects, acute and chronic effects
5	Chemicals in the workplace, Noise at work, Manual handling, controlling hazards
6	Methods of control

7	Elimination
8	Substitution
9	Mid Semester Exam
10	Engineering controls
11	Administrative controls, Personal protective equipment (PPE), Cumulative trauma disorder (CTD)
12	Evaluation of job risk factors, Controlling vibration hazards
13	Male and female reproductive health hazards in the work place, Health and safety for women and children, Labour code of Pakistan
14	Occupational health safety management system
15	Legislation related to health and safety at work, Check list
16	Role of health and safety representatives and labour union at work; meetings, reports, training education, negotiation
17	Role of government, Health and safety committee
18	End Semester Exam

Text and Material:

1. The Beginner's Guide to the Environmental, Health and Safety Profession by Chance Roberts, 2022
2. Occupational Health Hazards and Remedies. Mohapatra, R. Jaypee Brothers Medical Publishers Pvt. Ltd. India.
3. Risk assessment of chemicals: An Introduction. 2007. Leeuwen, C.J.V. Springer, USA.

ASSESSMENT SYSTEM:

Theoretical/Instruction	100%
Assignments	10%
Quizzes	15%
Mid Semester Exam	25%
End Semester Exam	50%

Practical Work	0%
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Lab Attendance	0%
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Lab Report	0%
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Lab Quiz	0%
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Lab Rubrics	0%
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