



राजस्थान आई.एल.डी. कौशल विश्वविद्यालय
RAJASTHAN I.L.D. SKILLS UNIVERSITY

FACULTY OF SECURITY AND SURVEILLANCE

NSQF LEVEL SCHEME

SECTOR : FIRE AND SAFETY

**B. VOC. IN FIRE TECHNOLOGY AND INDUSTRIAL
SAFETY MANAGEMENT**

REGULATION

NSFQ LEVEL 7

REGULATION

SEMESTER 5TH

Semester Wise-Syllabus

Skill Components (Theory & Practical)

Course Name : B. Voc. In Fire Technology and Industrial Safety Management**Semester V****Skill Component**

Code	Subject Type	Subject	Credits				Eose (Hrs.)		
			Theory	Practical	Self/Industry/Project	Total Credits	T	P	S
Skill Component (Location : Institute)									
	SC	Radiation Hazards	2	1	-	3	3	1	-
	SC	Social Security in Industries	2	1	-	3	3	2	-
	SC	Safety in Power Plant	2	1	-	3	3	3	-
	SC	Occupational Health	2	1	-	3	3	1	-
(OJT)/Qualification Packs) Location: Industry Partner)									
Internship/OJT/ Drill Practical			0	0	6	6	0	0	0
TOTAL			6	6	6	18	0	0	0

Skill Subjects**Skill Component - I : Radiation Hazards**

Component	Unit (Module)	Subunit (Session)	Learning objective	Duration in hour	Credit
Theory	Nuclear Energy	Definition, Nuclear Energy and Fission Chain Reaction, Nuclear Cycle, Enrichment and Fabrication, Nuclear Cycle Re Processing	Familiar with Nuclear Energy and its reaction. Understanding the process of nuclear cycle.	10	3
Theory	Radiation Hazards	Natural Gas, Thermal Neutrons, Ionizing and Non Ionizing radiation, Radiation Dose, Alpha, Beta and Gamma Radiation, Cosmic Radiation	Introduce to different types of Radiations. Hazards and Effects of Radiation like – Alpha, Beta, and Gamma Rays.	10	
Theory	Control Measures of Radiation Hazards	Ionizing Radiation Controls, Devices for Measuring Radiation, Controlling Radiation Hazards, Controlling Exposure, Non Ionizing Radiation, Disposal of Radioactive Wastes	Knowledge of equipment used to control radiation hazards. And understanding the method of disposal of radiation waste.	15	

Skill Component -II :- Social Security in Industries

Component	Unit (Module)	Subunit (Session)	Learning objective	Duration in hour	Credit
Theory Demonstration Practical	Social Security	Definition, Scope of Social Security, Social Security in India, Working of ESI, Benefits of Workers	To know about social security in India. To inform about the benefits to be received by such workers.	10	3
Theory Demonstration Practical	Various Acts use in Industries	Group Life Insurance, Workman's Compensation Act, Maternity Benefit Act, Employees provident Fund Act Right to payment for Maternity	To know about life insurance and explain about various acts. And Employees Provident Fund Act to know the right to pay for maternity.	15	
Theory Demonstration Practical	Industrial Policy	Insurance Policy, Taking Policy, Transit Insurance, Employees State Insurance, Safety Audit, After Fire Incident, After Theft, After Accident	Tell us about the insurance policy. Also, to understand the benefits of safety audit to avoid any kind of accident and fire accident etc.	10	

Skill Component -III : Safety in Power Plant

Component	Unit (Module)	Subunit (Session)	Learning objective	Duration in hour	Credit
Theory Demonstration Practical	Boilers and Its Safety Precautions	Introduction, Boilers, Gas Turbine, Control of Fluid Systems safety, General Safety Requirement, Safety Guidelines for high speed rotary equipment.	View on important safety points related to Boilers, Gas Turbines, Control of Fluid Systems etc.	05	4
Theory Demonstration Practical	Electrical Safety in Industry	Safety of Diesel Station, Electrical quality associated with Human Injury, Safety precautions for electrical workers, Safety rules for Line man\Authorization, Care and storage of Live line tools	Safety Precautions for Electrical Personnel working at Diesel Station, Power Station etc. Knowing Safety Rules for Line Man/Authority.	05	
Theory Demonstration Practical	Electrical Cables and Earthings	Responsibilities of Employees, HT and EHT Cables, Precautions in respect of Storage Batteries, Electrical Maintenance, Earthing	Knowing the precautions to be taken while maintaining and using electrical equipment as well as understanding your responsibilities.	10	

Skill Component -IV : Occupational Health

Component	Unit (Module)	Subunit (Session)	Learning objective	Duration in hour	Credit
Theory Demonstration Practical	Health Risks	Introduction, Occupational Health Risks, Ways to reduce occupational Risks, Excerpts from ILO Convention, Measures for Occupational Health and Safety, Compensation and Rehabilitation	Researching about occupational health risks and understanding how to reduce these risks. And to know about the compensation related to it.	05	2
Theory Demonstration Practical	Health Services	Working Women, Working Children, Insurance Schemes, Tips to improve Occupational Health, Community Health, Health services	Understanding various tips to improve occupational health. and community health, to learn about health services.	05	
Theory Demonstration Practical	Diseases and Medicines	Preventive medicines, Illness and Healing, Degenerative Illness, Common Diseases, Care of ENT, Diseases: Causes and cures.	To know about work-related disease and find out its causes and tell about its prevention measures.	10	

Objective:- To Train an individual in handling Fire Safety Equipment and Enable him/her to function as a Fire Technician.

Ref. Books:-

Agni Suraksha

Industrial safety health & Environment Management System

Industrial safety management and Health

Industrial Safety

- Mr. N. K. Verma

- Mr. R.K Jain

- Mr. M. K. Tarafdar

- Mr. Misti