

Invotech Precision Engineers

Syllabus for Advanced Diploma in Fire & Industrial Safety Engineering

1. Fire Safety, 2. Industrial Safety, 3. Construction Safety 4. First Aid and Practical.

Total hours' of learning 212

Each subject will have a 3 Hour Assessment with 100 marks paper 70% pass marks required to qualify

I Fire Safety

Basic Fire Science, -2

Physics and Chemistry of Fire Science-4

Fire Triangle-1

Heat Transfer and modes-1

Fire Pumps-1

Hose and Hose Fittings-1

Foam and Foam Making Apparatus-2

Ladders Ropes and lines-2

Automatic Fire Detection and Control-4

Flame Detectors--3

Smoke Detectors-3

Water Tender and Special Appliances-3

Water Relay Systems-2

Fire protection-2

Fire Safety -02

First Aid Fire Fighting -4

Fixed Fire Fighting Systems-4

II Industrial Safety-

Introduction to Safety Management-1

Prevention of Accidents- 3 hrs

Safety Health Environment and work place policy- 4 hrs

Types of Hazards like physical, biological, chemical..etc-6 hrs

Accident and root cause analysis- 4 hrs

Classification of accidents-3 hrs

Job Safety analysis-4 hrs

Accident Investigation -4 hrs

Control Techniques- 2 hrs

Hazard check list-1 hrs

Factors contributing hazards- 2 hrs

Personal Protective Equipment-2 hrs

Work Permits-4 hrs

Personal Hygiene-1 hrs

Housekeeping- 1 hrs

Behavior Based Safety- 1 hrs

Ergonomics- 1 hrs

Safety Audit- 4 hrs

Machine guarding- 1 hrs

Chemical Safety-

Roots of Entry- 1 hrs

Handling of Chemicals- 1 hrs

Industrial classification and labeling-1 hrs

Chemical safety Data Sheets- 1 hrs

Product Safety -1 hrs

Environmental Safety Management-6 hrs

Factories Act 1948-4 hrs

III. Construction Safety-

Topics Covered

Introduction construction safety -2 hrs

Scaffold-4 hrs

Ladders-2 hrs

Confined Space-6 hrs

Elevated work plat forms-2

Fall protection- 3 hrs

Material Handling-3 hrs

Electrical Safety-4

Trenching-2 hrs

Hand Tools- 2 hrs

Lock out Tag pout- 3 hrs

Slips trips & Falls-3 hrs

IV First Aid and Practical's

First Aid-8

Bleeding, CPR, Fractures, Insecticide bites Abrasions and lacerations, Bleeding and Burns

Lab work

Measurement of Toxic gases, Humidity, Light Sound and Velocity, Flash point, PPE wearing and maintenance, wearing of PFA, Donning on and off SCABA set,

Outdoor Practical's-

Erecting of Scaffolding and inspection 6 hrs

First Aid Fire Fighting

General Fire with Water Type Extinguishers -2

Oil Fire with AFFF and DCP- 2

Electrical Fire with DCP and CO2-2

Working at Heights -2

Rescue with Tripod-1

Erecting Safety Net-1