



TRAINING PROGRAM



# Laboratory Safety Management And Health Protection

## Introduction:

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Health and safety regulations are increasingly emphasizing the importance of management commitment and employee involvement in managing risks. This course describes practices that laboratories should implement to ensure effective health and safety management. These tools are based on the actions recommended in international standard guidelines on workplace safety and health program management. These tools are based on the actions recommended in international standard guidelines on workplace safety and health program management. The course focuses on creation and implementation of a health and safety program in the laboratory. The aim of this course is to enrich and update the knowledge and skills of the participants for understanding tools and procedure of safety methods in the laboratory.

## Who Should Attend?

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The course is planned for chemist, lab technicians, chemical engineers, instrument engineers, Safety engineers and lab supervisors/managers

## Methodology:

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This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

## Certificate:

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BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration

## Course Objectives:

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- To familiarize participants to the laboratory safety tools.
- To recognize and evaluate all potential hazards in a laboratory.
- To provide skills, knowledge and understanding of principles and practices of the application of safety methods in the laboratory.
- To prevent and control the chemical hazards in the laboratory.
- To know how to protect themselves and others.
- To know how to arrange safety hazardous waste disposal.
- To learn standard fire emergency procedures in the laboratory.

## Course Outline:

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- Laboratory Standard Safety Guideline
- Chemical Hygiene Plan
- Employers Responsibilities

- Personal Protective Equipment
- Identification of Hazardous Chemicals
- Manufacturer Label and Material Safety Data
- Chemical Safety Symbols
- Laboratory Ventilation and EXhaust control
- Ventilation and Hood System
- Evaluation and Maintenance Program
- Safe Work Practices and Procedures
- Chemical Handling Procedure
- Chemical Storage
- Management of Compressed Gases
- Transporting of Chemicals
- Working with Scaled-Up Reactions
- Electrical Safety
- Laboratory Equipment Hazards
- Particularly Hazardous Substances
- Biological Safety Containment
- Exposure Control and Laboratory Bio-safety Levels
- Guidelines for Good Laboratory Practices
- Laboratory fire protection
- Storage and Handling of Flammable and Combustible Liquids
- Fire Emergency Procedures
- Laboratory Waste Disposal
- Chemical Hazardous Waste Disposal
- Radioactive, Animal, Biological Hazards Wastes Disposal
- Spill and Hazard Waste Management
- Safety Procedures of Chemical Spill
- Effects of chemicals on human health
- Environmental Effect of the Chemical Waste
- Laboratory First Aid