

LIFE SAFETY ENGINEER: FACILITY LIFE SAFETY SYSTEMS & REGULATIONS

COURSE OUTLINE 2025

Contact Us On :

Tel : +971 7 2042072 | Email: training@maestrouae.net Website: <u>www.maestrouae.net</u>

TRAINING TITLE

LIFE SAFETY ENGINEER: FACILITY LIFE SAFETY SYSTEMS & REGULATIONS

<u>VENUE</u>

DUBAI, UAE

DURATION

5 Days

DATES

16-20 June 2025

PRICE

\$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks, and Lunch.

TRAINING INTRODUCTION

This 5-day course is designed to equip professionals with the knowledge and skills necessary to understand and manage life safety systems in industrial and commercial facilities. The course covers a broad range of topics, from fire detection and suppression systems to emergency evacuation planning and compliance with international life safety regulations. Participants will gain a thorough understanding of the design, implementation, operation, and maintenance of life safety systems that protect people and assets in case of emergencies, as well as how to ensure compliance with relevant safety standards and regulations.

TRAINING OBJECTIVES

By the end of the course, participants will be able to:

- Understand the key principles and components of life safety systems.
- Design, implement, and maintain fire detection, suppression, and emergency communication systems.
- Analyze emergency evacuation plans and procedures.
- Ensure compliance with national and international life safety regulations and standards.
- Assess and manage risks related to life safety in industrial and commercial facilities.

TRAINING AUDIENCE

- Life safety engineers and safety officers
- Facility managers and operators
- Fire protection engineers and safety inspectors
- HSE (Health, Safety, and Environmental) professionals
- Emergency response planners
- Project managers and designers involved in facility construction or renovation

TRAINING OUTLINE

Day 1: Introduction to Life Safety Systems

- Overview of life safety systems and their purpose
- Key components: fire detection, alarm, suppression, and emergency lighting systems
- Regulatory framework and safety standards (NFPA, OSHA, local regulations)
- Roles and responsibilities of life safety engineers
- Risk assessment and safety audits

Day 2: Fire Detection and Alarm Systems

- Principles of fire detection technologies (smoke, heat, flame detection)
- Designing fire alarm systems: components and integration
- Fire alarm panel operations and troubleshooting
- Testing, maintenance, and inspection of fire alarm systems
- Evacuation signaling systems and their importance

Day 3: Fire Suppression and Control Systems

- Types of fire suppression systems: water-based, gas, foam, and dry chemical
- Design and selection of fire suppression systems
- Fire sprinkler systems: NFPA standards and installation best practices
- Gaseous fire suppression systems: CO₂, FM-200, and inert gases
- Maintenance and inspection of suppression systems

Day 4: Emergency Evacuation and Communication Systems

- Designing emergency evacuation plans and routes
- Emergency lighting and signage requirements
- Voice communication systems and mass notification systems (MNS)
- Role of life safety systems in building occupant safety
- Managing people flow during emergencies: crowd control and egress
 planning

Day 5: Compliance, Risk Management, and Life Safety System Integration

- Life safety regulations and standards: NFPA 101, OSHA, IEC, local building codes
- Risk management approaches and the identification of hazards
- Conducting safety drills and training exercises
- Auditing life safety systems for compliance
- Integrating life safety systems with overall facility management and emergency response plans

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course.

<u>METHODOLOGY</u>

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of "real life" issues in their organizations. The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.