



السعودية للطيران المدني Saudi Academy of Civil Aviation

# FIRE AND RESCUE

TRAINING CENTER

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#### **Saudi Academy of Civil Aviation**

It is a leading educational entity in the Kingdom of Saudi Arabia, established in 1962 as a technical training institute in 2007 for a specialized academy offering a set of specialized diploma programs and training courses that suit the needs of the Aviation Sector and contribute to qualification and training of human resources working to support 28 airports in the Kingdom.

The programs and courses offered by the academy include the following **specializations:** 

Air Traffic Control - Maintenance of Aviation Systems - Fire and Rescue - Airport Operation and Safety - Aviation Security.

#### **Fire and Rescue**



Fire and Rescue Training Center means training trainees to work in the field of Fire and Rescue by arranging training diplomas and courses which are multi-leveled, "Beginner, Intermediate & Advanced", and under international standards for the General Authority for Civil Aviation (GACA), companies, institutions from various authorities, in the fields of building fires, industrial fires and public safety. The center is characterized by providing specialized courses in aircraft accidents and fires.

#### **Equipment and Facilities**

The Fire and Rescue Training Center provides a number of world-class simulations to support training with modern means and high techniques, such as airplane simulator, a large MD-11 Boeing 747-767 aircraft, which contains an electronic control room representing all the expected scenarios to have a fire or smoke inside and outside the plane.

The center also supports its programs with industrial fire simulator, which represent the technologies used in the industrial field and how to deal with them in the event of fire and emergencies, in addition to the advanced electronic program to represent the operations of command, control, and implementation of fire and rescue operations at airports. The center provides Rosenbauer Panther vehicles that are used in the fight against aircraft fires and have the ability to firefight while in motion.

#### **The Specialized Courses**

- Hazardous Materials (Awareness Core Personal Protective Equipment -Product Control - Technician).
- Firefighter (I II)
- Fire Apparatus Driver\Operator (General pumper Mobile water supply Aircraft Rescue and Firefighting).
- Airport Firefighter
- Telecommunication (I II)
- Fire Inspector I
- Fire Instructor I
- Fire Officer I

#### **Center Accreditations**



Authorized by the International Civil Aviation Authority (ICAO)



Authorized by the International Fire Services Accreditation Council. (IFSAC)



Authorized by General Authority of Civil Aviation ( GACA)





FRS Orientation and Terminology

After completing the course, the trainees will have met the sections required for a NFPA 1001.

#### What will you learn?

- Identify fire protection and emergencyservice careers.
- Recognize the components of career preparation and goal setting.
- Describe the importance of wellness and fitness as it relates to emergency services.
- Identify the duties of fire suppression (operations) personnel.
- Describe the early history of fire services.
- Explain the various responsibilities of fire and emergency services personnel regarding fire investigation.
- Explain the three main aspects of the science of fire and classifications.
- Identify fire department apparatus and recognize the uses for uniforms and personal protective clothing and breathing apparatus.
- Describe how the Incident Management System works in the fire and emergency services field.

#### **Learning Activities**









Lectures

Individual exercises exercises

Presentation

#### Who should attend?

Fire and Rescue employees.



#### **Course Language**

English.



#### **Duration**

5 days.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.

## FRC 002:

Occupational Safety and Health Awareness

After completing the course, the trainees will have met the sections required for OSHA.

#### What will you learn?

- Explain that occupational health and safety is more than accident prevention that it encompasses all aspects of working conditions.
- Explain why management's commitment to health and safety is crucial.
- Explain why training is a critical component of any health and safety program.
- Recognize a number of occupational hazards and some of the types of work generally associated with those hazards.
- The Importance of training.
- Describe three ways in which hazardous agents can enter the body.
- Give examples of local, systemic, acute and chronic effects.
- Explain several methods of preventing hazardous agents from entering the body.
- Describe at least three methods of control.
- Give several examples of how occupational noise can affect a worker.
- Suggest several methods of noise control in the workplace.
- Identify several potential noise hazards in the workplace.

#### **Learning Activities**











Presentation

#### Who should attend?

exercises

Airport Stuff.



#### Course Language

English.



#### **Duration**

1 day.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.

# FRC 003: First Aid Provider

After completing the course, the trainees will have met the sections required for a NFPA 1001.

#### **Learning Activities**



Lectures



exercises





exercises



Presentation

#### What will you learn?

- Identify first aid.
- Implement First aid law.
- Know the paramedic's assessment of the patient's condition.
- Know emergency procedures in emergency situations.
- Implement Cardiopulmonary resuscitation.
- Identify of disaster procedures and medical triage.
- Know and applying the methods of carrying the injured.

#### Who should attend?

Fire and Rescue employees.



#### Course Language

- English.
- Arabic.



#### **Duration**

2 days.



#### 

Passing Grade is 70% of the final exam.

# FRC 004:

**Emergency Evacuation Plan** 

After completing the course, the trainees will have met the sections required for a Civil Defense by laws.

### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What will you learn?

- Identify yourself with the concepts of evacuation.
- Implementation of the objectives of the evacuation plan.
- Identify cases that require eviction.
- Identify yourself with the basic elements of an evacuation plan.
- Identify the tasks and responsibilities of the (safety team).
- Implement of safety team member procedures during emergency situations in the building.
- Identify the tasks and responsibilities of the relevant authorities.

#### Who should attend?

Public.

#### **Course Language**

- English.
- Arabic.



#### **Duration**

1 day.



#### **■ Assessment and Certification**

Passing Grade is 70% of the final exam.

# FRC 005:

HazMat Awareness Level

After completing the course the trainees will have met the sections required for an Awareness Level first responder in the National Fire Protection Association (NFPA) 1072 edition, professional qualifications standard. Trainees who successfully complete the certification process will be certified as an Awareness-Level first responder.

#### What will you learn?

- Identify yourself with the concepts of evacuation.
- Implementation of the objectives of the evacuation plan.
- Identify cases that require eviction.
- Identify yourself with the basic elements of an evacuation plan.
- Identify the tasks and responsibilities of the (safety team).
- Implement of safety team member procedures during emergency situations in the building.
- Identify the tasks and responsibilities of the relevant authorities.

#### **Learning Activities**

- Make appropriate notifications of a hazardous materials incident.
- Identify indicators and hazards present
   at a hazardous materials incident using approved reference sources.
- Implement protective actions at a hazardous materials incident.

#### Who should attend?

- Fire and Rescue employees.
- Public.

#### What is covered?

- Introduction to Hazardous Materials.
- Recognizing and Identifying the Presence of Hazardous Materials.
- Implementing the Response: Awareness Level Actions at Hazmat Incidents.

#### Course Language

- English.
- Arabic.



#### **Duration**

2 day.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



HazMat Operations Level (Core)

After completing the course the trainees will have met the sections required for an Operations Level first responder in the National Fire Protection Association (NFPA) 1072, professional qualifications standard. Trainees who successfully complete the certification process will be certified as an Operations (CORE) Level first responder.

#### What will you learn?

- Analyze a hazardous materials scenario to identify potential hazards.
- Identify actions available at a hazardous materials incident.
- Provide scene control at a hazardous materials incident.
- Evaluate and report progress made at a hazardous materials incident.
- Planning the Response: Identifying Action Options.
- Implementing and Evaluating the Action Plan: Incident Management and Response Objectives and Action Options.
- Implementing the Response: Terrorist Attacks, Criminal Activities, and Disasters.

#### **Prerequisites**

Hazardous Material Awareness.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.

#### **Learning Activities**

- Analyze a hazardous materials scenario to identify potential hazards.
- Identify actions available at a hazardous materials incident.
- Provide scene control at a hazardous materials incident.
- Evaluate and report progress made at a hazardous materials incident.

#### What is covered?

- Analyzing the Incident: Identifying Potential Hazards.
- Analyzing the Incident: Identifying Containers and Predicting Behavior
- Planning the Response: Identifying Action Options.
- Implementing and Evaluating the Action Plan: Incident Management and Response Objectives and Action Options.
- Implementing the Response: Terrorist Attacks, Criminal Activities, and Disasters.

#### Who should attend?

Fire and Rescue employees.



#### 回忆 Course Language

- English.
- Arabic.



#### **Duration.**

2 day.

# FRC 007:

HazMat Operations Level (PPE)

After completing the course the trainees will have met the sections required for an Operations Level first responder in the National Fire Protection Association (NFPA) 1072, professional qualifications standard. Trainees who successfully complete the certification process will be certified as an Operations (PPE) Level first responder.

#### What will you learn?

- Select, don, work in, and doff approved PPE at a hazardous materials incident.
- Identifying Policies and procedures for PPE selection and use; importance of working under the guidance of a hazardous materials technician.
- Selecting PPE for the assignment;inspecting, maintaining, storing, donning, working in, and doffing PPE.
- Perform mass decontamination for ambulatory and non-ambulatory victims at a hazardous materials incident.
- Identify types of PPE and the hazards for which they are used.

#### **Learning Activities**

- Select appropriate PPE to address a hazardous materials scenario.
- Don, work in, and doff structural firefighting personal protective equipment.
- Don, work in, and doff a Level C ensemble.
- Don, work in, and doff liquid splash-protective clothing.
- Don, work in, and doff vapor-protective clothing.

#### What is covered?

 Implementing the Response: Personal Protective Equipment.

#### Who should attend?

• Fire and Rescue employees.

#### Image: The control of the control of

- English.
- Arabic.



#### **Duration**

2 day.

#### **■ இ** Assessment and Certification

Passing Grade is 70% of the final exam.



#### **Prerequisites**

HazMat Operations Level (Core).

# FRC 008:

HazMat Operations (Product Control)

After completing the course the trainees will have met the sections required for an Operations Level first responder in the National Fire Protection Association (NFPA) 1072, professional qualifications standard. Students who successfully complete the certification process will be certified as an Operations (PC) Level first responder.

#### What will you learn?

- Implementing the Response: Mission-Specific Product Control.
- Perform product control techniques with a limited risk of personal exposure at a hazardous materials incident.
- Perform absorption/adsorption.
- Perform damming and diking operations.
- Perform diversion and retention.
- Perform vapor suppression and vapor dispersion.
- Perform remote valve shutoff or activate emergency shutoff device.

#### **Learning Activities**

- Perform absorption/adsorption.
- Perform damming.
- Perform diking operations.
- Perform diversion.
- Perform retention.
- Perform vapor suppression.
- Perform vapor dispersion.
- Perform dilution.
- Perform remote valve shutoff or activate emergency shutoff device.

#### What is covered?

 Implementing the Response: Mission-Specific Product Control.

#### Who should attend?

• Fire and Rescue employees.

#### ឝ្ឝឝ Course Language

- English.
- Arabic.



3 day.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



Hazardous Material Operations Level (PPE).



After completing the course the trainees will have met the sections required for a Firefighter I in (NFPA) 1001 standard for fire fighter professional qualifications. Trainees who successfully complete the certification process will be certified as a Firefighter I.

#### What will you learn?

- Identifying the fire department's standard operating procedures (SOPs) and rules and regulations as they apply to the Fire Fighter I.
  - Initiate the response to a reported emergency, given the report of an emergency, fire department SOPs, and
- communications equipment, so that all necessary information is obtained, communications equipment is operated correctly, and the information is relayed promptly and accurately to the dispatch center.
- Ability to shall involve performing
   activities necessary to ensure life safety, fire control, and property conservation.
- Ability to shall involve performing activities that reduce the loss of life and property due to fire through response readiness.

#### What is covered?

- Orientation and fie service history.
- Fire behavior.
- Firefighter Personal Equipment.
- Fire hose.
- Ground Ladders.
- Portable Extinguisher.
- Ropes, Webbing and Knots.
- Building Construction.
- Structure Search, Victim.
- Scene Lighting, Rescue Tools, Vehicle Extrication, and Technical Rescue.
- Forcible Entry.
- Ventilation.
- Water Supply.
- Fire Stream.
- Fire Control.
- Loss Control.
- Fire-fighter Health and Safety.
- Fire Department Communications.

#### Who should attend?

Fire and Rescue employees.

#### ্ৰি<sup>ত্ৰ</sup> Course Language

- English.
- Arabic.



#### **Duration**

40 dav.

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#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Hazardous Material Operations Level.

#### **Learning Activities**

- Respond to an incident, correctly mounting and dismounting an apparatus.
- Wearing appropriate PPE, including reflective vest, demonstrate scene management at roadway incidents using traffic and scene control devices.
- Handle emergency and nonemergency calls.
- Use a portable radio for routine and emergency traffic.
- Demonstrate the method for donning structural personal protective clothing for use at an emergency.
- With structural personal protective clothing in place, demonstrate the over-the-head method of donning an SCBA.
- With structural personal protective clothing in place, demonstrate the coat method of donning an SCBA.
- With structural personal protective clothing in place, demonstrate the method for donning an SCBA while seated.
- Doff personal protective equipment, including respiratory protection, and prepare for reuse.
- Demonstrate the steps for inspecting an SCBA.
- Demonstrate the steps for cleaning and sanitizing an SCBA.
- Demonstrate the method for filling an SCBA cylinder from a cascade system, wearing appropriate PPE, including eye and ear protection.

- Demonstrate the method for filling an SCBA cylinder from a compressor/purifier system wearing appropriate PPE, including eye and ear protection.
- Demonstrate the one-person method for replacing an SCBA cylinder.
- Demonstrate the two-person method for replacing an SCBA cylinder.
- Operate a stored pressure water extinguisher.
- Operate a dry chemical (ABC) extinguisher.
- Operate a carbon dioxide (CO2) extinguisher.
- Inspect, clean, and store rope.
- Tie an overhand knot.
- Tie a bowline knot.
- Tie a clove hitch.
- Tie a clove hitch around an object.
- Tie a handcuff (rescue) knot.
- Tie a figure-eight knot.
- Tie a figure-eight bend.
- Tie a figure-eight on a bight.
- Tie a figure-eight follow through.
- Tie a Becket bend.
- Tie a water knot.
- Hoist an axe.
- Hoist a pike pole.

- Hoist a roof ladder.
- Hoist a dry hoseline.
- Hoist a charged hoseline.
- Hoist a power saw.
- Demonstrate the procedure for conducting a primary search.
- Demonstrate the procedure for conducting a secondary search.
- Demonstrate the incline drag.
- Demonstrate the webbing drag.
- Demonstrate the cradle-in-arms lift/carry
   One- rescuer method.
- Demonstrate the seat lift/carry Two-rescuer method.
- Demonstrate the extremities lift/carry -Two-rescuer method.
- Demonstrate the actions required for transmitting a MAYDAY report.
- Demonstrate the proper procedures for an SCBA air emergency.
- Demonstrate the actions required for withdrawing from a hostile environment with a hoseline.
- Demonstrate low profile maneuvers without removing SCBA - Side technique.
- Perform low profile maneuvers without
   removing SCBA SCBA- first technique.
   Demonstrate the method for breaching an interior wall.
- Demonstrate the steps for disentangling from debris or wires.

- Clean, inspect, and maintain hand tools and equipment.
- Clean, inspect, and maintain power tools and equipment.
- Force entry through an inward-swinging door - Two-firefighter method.
- Force entry through an inward-swinging door Cutting the lock out of the door method.
- Force entry through an outward-swinging door Removing hinge-pins method.
- Force entry though an outward-swinging door Wedge-end method.
- Force entry using the through-the-lock method.
- Force entry using the through-the-lock method using the K tool.
- Force entry using the through-the-lock method using the A tool.
- Force entry through padlocks.
- Use a bam-bam tool.
- Cut a padlock with a rotary saw.
- Force entry through a window (glass pane).
- Force entry through a double-hung window.
- Force a Lexan® window using a rotary saw.
- Force entry through a wood-framed wall. (Type V construction) with hand tools.
- Force entry through a wood wall. (Type V construction) with a rotary saw or chain saw.

- Breach a wall using a battering ram.
- Force entry through a masonry wall with hand tools.
- Force entry through a metal wall with power tools.
- Breach a hardwood floor.
- Bridge a fence with a ladder.
- Clean, inspect, and maintain a ladder.
- Carry a ladder One-firefighter low-shoulder method.
- Carry a ladder Two-firefighter low-shoulder method.
- Carry a ladder Three-firefighter flatshoulder method.
- Carry a ladder Three-firefighter flat-arm's length method.
- Carry a ladder Two-firefighter arm's length on-edge method.
- Tie the halvard.
- Raise a ladder One-firefighter method.
- Raise a ladder Two-firefighter flat raise.
- Raise a ladder Two-firefighter beam raise.
- Raise a ladder Three- or four-firefighter flat raise.
- Deploy a roof ladder One-firefighter method.
- Pivot a ladder Two-firefighter method.
- Shift a ladder One-firefighter method.

- Shift a ladder Two-firefighter method.
- Heel a ground ladder.
- Leg lock on a ground ladder.
- Assist a conscious victim down a ground ladder.
- Assist an unconscious victim down a ground ladder.
- Ventilate using mechanical negative pressure in a window.
- Ventilate using mechanical negative pressure in a doorway.
- Ventilate using mechanical positive pressure.
- Perform horizontal hydraulic ventilation.
- Demonstrate the procedure for sounding a roof.
- Ventilate using a rotary saw to cut an opening.
- Ventilate using an axe to cut an opening.
- Demonstrate the procedure for opening a flat roof.
- Perform the steps for opening pitched roofs.
- Demonstrate the procedure for making a trench cut using a rotary saw.
- Operate a hydrant.
- Make soft-sleeve and hard-suction hydrant connections.
- Connect and place a hard-suction hose for drafting from a static water source.
- Deploy a portable water tank.

- Couple and uncouple a hose.
- Inspect and maintain a fire hose.
- Make a straight hose roll.
- Make a donut hose roll.
- Make the flat hose load.
- Make the accordion hose load.
- Make the horseshoe hose load.
- Make a finish.
- Make the preconnected flat hose load.
- Make the triple layer hose load.
- Make the minuteman hose load.
- Make a hydrant connection from a forward lay.
- Make the reverse hose lay.
- Advance a hose load.
- Deploy a wye-equipped hose during a reverse hose lay.
- Advance a charged hoseline using the working line drag method.
- Advance a line into a structure.
- Advance a line up and down an interior stairway.
- Connect to a stairway standpipe connection and advance an attack hoseline onto a floor.
- Advance an uncharged line up a ladder into a window.
- Advance a charged line up a ladder into a window.
- Operate a charged attack line from a ladder.

- Operate a small hoseline One-firefighter method.
- Operate a large hoseline for exposure protection One-firefighter method.
- Operate a large hoseline Two-firefighter method.
- Extend a hoseline.
- Replace a burst hoseline.
- Operate a fog-stream nozzle.
- Operate a broken stream nozzle.
- Operate a solid stream nozzle.
- Attack a structure fire using a direct, indirect, or combination attack.
- Attack a structure fire above, below, and at ground level Interior attack.
- Turn off building utilities.
- Connect supply fire hose to a fire department connection.
- Operate a sprinkler system control valve.
- Stop the flow of water of an activated sprinkler.
- Deploy and operate a portable master stream device.
- Attack a passenger vehicle fire.
- Attack a fire in stacked or piled materials
- Attack a fire in a small unattached structure.
- Extinguish a fire in a trash container.

- Attack a ground cover fire.
- Clean, inspect, and repair a salvage cover.
- Roll a salvage cover for a one-firefighter spread.
- Spread a rolled salvage cover One-firefighter method.
- Fold a salvage cover for a one-firefighter spread.
- Spread a folded salvage cover One-firefighter method.
- Fold a salvage cover for a two-firefighter spread.
- Spread a folded salvage cover Two-firefighter balloon throw.
- Construct a water chute without pike poles.
- Construct a water chute with pike poles.
- Construct a catchall.
- Make a chute and attach it to a catchall.
- Locate and extinguish hidden fires.



After completing the course the trainees will have met the sections required for a Firefighter II in (NFPA) 1001 standard for fire fighter professional qualifications. Trainees who successfully complete the certification process will be certified as a Firefighter II.

#### What will you learn?

- Understand the responsibilities of the Fire Fighter II in assuming and transferring command within an incident management system Communication Center.
- Complete a basic incident report, given the report forms, guidelines, and information, so that all pertinent information is recorded, the information is accurate, and the report is complete.
- Ability to shall involve performing activities necessary to ensure life safety, fire control, and property conservation.
- Ability to shall involve performing activities related to accessing and disentangling victims from motor vehicle accidents and helping special rescue teams.
- Ability to shall involve performing activities related to reducing the loss of life and property due to fire through hazard identification, inspection, and response readiness

#### What is covered?

- Advanced Fire Attack.
- Communication Center.
- Fire control.
- Fire Origin and Cause Determination.
- Fire protection system.
- Firefighting Hoses.
- Foam application.
- Incident Management System.
- Vehicle Extrication.

#### Who should attend?

Fire and Rescue employees.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Firefighter I.



#### □ Course Language

- English.
- Arabic.



#### **Duration**

20 day

#### **Learning Activities**

- Create an incident report.
- Demonstrate the steps for inspecting,
- servicing, and maintaining a portable generator and lighting equipment.
- Prevent horizontal movement of a vehicle using wheel chocks.
- Stabilize a vehicle using cribbing.
- Stabilize a vehicle using lifting jacks.

  Stabilize a vehicle using a system of ropes and webbing.
- Stabilize a side-resting vehicle using a buttress tension system.
- Remove a windshield in an older model vehicle.
- Remove a tempered glass side window.
- Remove a roof from an upright vehicle.
- Remove a roof from a vehicle on its side.
- Displace the dashboard.

- Service test a fire hose.
- Place a foam line in service using an inline eductor.
- Extinguish an ignitable liquid fire.
  - Establish Incident Command and
- coordinate interior attack of a structure fire.
- Control a pressurized flammable gas container fire.
- Protect evidence of fire cause and origin.
- Conduct a fire safety survey in an occupied structure.
- Make a fire and life safety presentation.
- Conduct a fire station tour.
- Prepare a preincident planning survey.

# FRC 011:

Fire Apparatus Drive\Operator (General)

After completing the course the trainees will have met the firefighting apparatus in NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. Trainees who successfully complete the certification process will be certified as a driver/ operator.

#### What will you learn?

- Perform visual and operational checks on the systems and components.
- Operate a fire apparatus, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features that the driver/operator is expected to encounter during normal operations.
- Initiating responses, receiving telephone calls, and using are department communications equipment to correctly relay verbal or written information.
- Activate emergency procedures, given an emergency situation and department SOPs, so that emergency actions can be initiated.

#### What is covered?

- Types of Apparatus Equipped with a Pump.
- Apparatus Inspection and Maintenance.
- Apparatus Safety and Operating. Emergency Vehicles.
- Positioning Apparatus.
- Principles of Water.
- Hose Nozzles and Flow Rates.
- Theoretical Pressure Calculations.
- Fire ground Hydraulic Calculations.
- Static Water Supply Sources.
- Water Shuttle Operations.
- Foam Equipment and Systems.
- Apparatus Testing.

#### Who should attend?

Fire and Rescue employees.

#### 

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Firefighter II.

#### **Course Language**

- English.
- Arabic.



#### **Duration**

2 days.

#### **Learning Activities**

- Clean the interior and wash and wax the exterior of a fire department apparatus.
- Perform a routine walk-around maintenance inspection.
- Perform an in-cab operational inspection.
- Test apparatus road and parking brakes.
- Perform engine compartment inspection and routine preventive maintenance.
- Charge an apparatus battery.
- Perform a hard intake hose service test.
- Start, idle, and shut down a fire service apparatus.
- Drive a fire service apparatus.
- Back apparatus using mirrors.
- Perform various driving exercises.
- Perform various road tests in a fire service apparatus.
- Test hose carried on fire department apparatus to determine friction loss.
- Engage and disengage a power take-off (PTO).

- Engage and disengage a pump.
   Operate from a pressurized water source.
- Draft from a static water supply.
- Supply water to a sprinkler/standpipe system.
- Dam a stream with a ladder and salvage cover.
- Operate in an open relay.
- Operate in a closed relay.
- Operate at a fill site as part of a water shuttle operation.
- Install and operate an in-line foam educator.
- Perform an engine speed test.
- Perform a vacuum test.
- Perform discharge gauge and flowmeter operational tests.

# FRC 012:

Fire Apparatus Drive\Operator (Pumper)

After completing the course the trainees will have met the firefighting apparatus in NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. Trainees who successfully complete the certification process will be certified as a driver/ operator.

#### What will you learn?

- Perform visual and operational checks on the systems and components.
- Respond on apparatus to an emergency scene, given safety equipment as provided by the AHJ.
- Establish and operate in work areas at emergency and nonemergency scenes, given safety equipment, traffic and scene control devices, emergency and nonemergency scenes.
  - Ability to position a fire department pumper to operate at a fire hydrant and at a static
- water source, power transfer from vehicle engine to pump, draft, operate pumper pressure control systems.
- Produce a foam fire stream, given foamproducing equipment, so that proportioned foam is provided.

#### Assessment and Certification

Passing Grade is 70% of the final exam.

#### **Prerequisites**

Firefighter II.

#### What is covered?

- Types of Apparatus Equipped with a Pump
- Apparatus Inspection and Maintenance
- Apparatus Safety and Operating **Emergency Vehicles**
- Positioning Apparatus
- Principles of Water
- Hose Nozzles and Flow Rates
- Theoretical Pressure Calculations
- Fire ground Hydraulic Calculations
- Fire Pump Theory
- Operating Fire Pumps
- Static Water Supply Sources
- Relay Pumping Operations
- Water Shuttle Operations
- Foam Equipment and Systems
- **Apparatus Testing**
- Introduction to Aerial Fire Apparatus
- Positioning Aerial Apparatus
- Stabilizing the Apparatus
- **Operating Aerial Apparatus**

#### Who should attend?

Fire and Rescue employees.



#### **□** Course Language

- English.
- Arabic.



#### Duration

3 days.

#### **Learning Activities**

- Clean the interior and wash and wax the exterior of a fire department apparatus.
- Perform a routine walk-around maintenance inspection.
- Perform an in-cab operational inspection.
- Test apparatus road and parking brakes.
- Perform engine compartment inspection and routine preventive maintenance.
- Charge an apparatus battery.
- Perform daily inspections for apparatus equipped with a fire pump.
- Perform weekly inspections for apparatus equipped with a fire pump.
- Perform a hard intake hose service test.
- Start, idle, and shut down a fire service apparatus.
- Drive a fire service apparatus.
- Back apparatus using mirrors.
- Perform various driving exercises.
- Perform various road tests in a fire service apparatus.
- Position pumper and make large diameter intake hose connections.
- Position pumper and connect to 2½-inch (65 mm) hydrant outlets.
- Position pumper and make multiple intake connections.
- Position pumper and make connections for a dual pumping operation.
- Position pumper and make connections for a tandem pumping operation.

- Test hose carried on fire department apparatus to determine friction loss.
- Engage and disengage a power take-off (PTO).
- Engage and disengage a pump.
- Operate from a pressurized water source.
- Draft from a static water supply.
- Supply water to a sprinkler/standpipe system.
- Dam a stream with a ladder and salvage cover.
- Operate in an open relay.
- Operate in a closed relay.
- Operate at a fill site as part of a water shuttle operation.
- Operate at a portable water tank dump site as part of a water shuttle operation.
- Establish, operate, and shut down a multiple portable tank water shuttle dump site.
- Install and operate an in-line foam educator.
- Perform an engine speed test.
- Perform a vacuum test.
  - Prepare the pumper and complete a performance test of a fire pump including
- the priming system, pumping overload, and pressure control tests.
- Perform discharge gauge and flowmeter operational tests.
- Perform a tank-to-pump flow test.

### FRC 013:

Fire Apparatus Drive\Operator - Mobile Water Supply

After completing the course the trainees will have met the firefighting apparatus in NFPA 1002 Standard for Fire Apparatus Driver/ Operator Professional Qualifications. Trainees who successfully complete the certification process will be certified as a driver/ operator.

#### What will you learn?

- Perform visual and operational checks on the systems and components.
- Maneuver and position a mobile water supply apparatus at a water shuttle fill site. given a fill site location and one or more supply hose.
- Ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.
- Ability to deploy portable water tanks, connect and operate water transfer equipment, and connect a strainer and suction hose to the fire pump.

#### What is covered?

- Types of Apparatus Equipped with a Pump
- Apparatus Inspection and Maintenance
- Apparatus Safety and Operating **Emergency Vehicles**
- Positioning Apparatus
- Principles of Water
- Hose Nozzles and Flow Rates
- Theoretical Pressure Calculations
- Fire ground Hydraulic Calculations
- Fire Pump Theory
- **Operating Fire Pumps**
- Static Water Supply Sources
- Relay Pumping Operations
- Water Shuttle Operations
- Foam Equipment and Systems
- **Apparatus Testing**
- Introduction to Aerial Fire Apparatus
- Positioning Aerial Apparatus
- Stabilizing the Apparatus
- **Operating Aerial Apparatus**

#### Who should attend?

Fire and Rescue employees



#### Assessment and Certification

Passing Grade is 70% of the final exam



#### **Prerequisites**

Firefighter II



#### Image: The control of the control of

- English
- Arabic



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#### **Learning Activities**

- Clean the interior and wash and wax the exterior of a fire department apparatus.
- Perform a routine walk-around maintenance inspection.
- Perform an in-cab operational inspection.
- Test apparatus road and parking brakes.
- Perform engine compartment inspection and routine preventive maintenance.
- Charge an apparatus battery.
- Perform a hard intake hose service test.
- Start, idle, and shut down a fire service apparatus.
- Drive a fire service apparatus.
- Back apparatus using mirrors.
- Perform various driving exercises.
- Perform various road tests in a fire service apparatus.
- Test hose carried on fire department apparatus to determine friction loss.
- Engage and disengage a power take-off (PTO).
- Engage and disengage a pump.
- Perform pump operations from the apparatus water tank.
- Make the transition from the apparatuswater tank to an external pressurized water supply.
- Operate from a pressurized water source.
- Draft from a static water supply.

- Supply water to a sprinkler/standpipe system.
- Dam a stream with a ladder and salvage cover.
- Operate in an open relay.
- Operate in a closed relay.
- Verify operational readiness of mobile water supply apparatus.
- Operate at a fill site as part of a water shuttle operation.
- Operate at a portable water tank dump site as part of a water shuttle operation.
- Establish, operate, and shut down amultiple portable tank water shuttle dump site.
- Install and operate an in-line foam educator.
- Perform an engine speed test.
- Perform a vacuum test.
- Prepare the pumper and complete a performance test of a fire pump including the priming system, pumping overload, and pressure control tests.
- Perform discharge gauge and flowmeter operational tests.
- Perform a tank-to-pump flow test.

# FRC 014: Airport Firefighter

After completing the course the trainees will have met the sections required for an Airport Fire Fighter in the NFPA 1003 Standard for Airport Fire Fighter Professional Qualifications. Trainees who successfully complete the certification process will be certified as an Airport Fire Fighter.

#### What is covered?

- Qualifications for Aircraft Rescue and Fire Fighting Personnel.
- Airport Familiarization.
- Aircraft Familiarization.
- Safety and Aircraft Hazards.
- Communications.
- Rescue.
- Extinguishing Agents.
- Apparatus.
- Fire Suppression, Ventilation, and Overhaul.
- Driver/Operator.
- Airport Emergency Planning.
- Strategic and Tactical Operations.

#### Who should attend?

Fire and Rescue employees.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Firefighter II.

#### What will you learn?

- Implementing the response involves the timely arrival at an incident or accident and the capability to perform emergency.
  - Operating communications systems, communicate an accurate situation report,
- implement incident management system (IMS) protocol and airport emergency plan, and recognize aircraft types.
- Perform an airport operation, given an assignment, a hazardous condition, and the airport policies and procedures, so that unsafe conditions are detected and reduced in accordance with the airport policies and procedures.
- Attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property.
  - Gain access into and out of an aircraft through normal entry points and emergency hatches, secure and shut down the aircraft,
- and assist in the evacuation process while operating as a member of a team, given approved PPE and an assignment, so that passenger evacuation and rescue can be accomplished.
  - Implement initial triage of the victims of an aircraft accident, given PPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to protocol.



#### Course Language

- English.
- Arabic



#### **Duration**

20 days.

#### **Learning Activities**

- Use a grid map to respond to the site of an aircraft incident/accident.
- Obtain a clearance from ground control using phonetic alphabet and aviation terminology.
- Communicate an accurate situation report about an aircraft incident/accident to an incident commander using incident management system (IMS) protocol.
- Recognize hazardous conditions at an aircraft incident/accident and initiate corrective action.
- Implement initial triage of the victims of an aircraft accident or incident.
- Stabilize an aircraft using webbing, ropes, chains or come-along (cable winch).
- Deploy an air stairs unit (aircraft passenger stairs).
- Open aircraft doors and hatches.
- Cut an access opening in the skin of an aircraft (power saw).
- Use hydraulic tools (cutters and/or spreaders) to open a hole in the side of an aircraft.
- Perform operations to safety and shut down an aircraft.
- Demonstrate the procedure for conducting a primary search of an aircraft after self-evacuation.
- Use a hydraulic device to remove a seat from an aircraft.
- Resupply an ARFF vehicle with water.
- Resupply an ARFF vehicle with Foam.

- Resupply an ARFF vehicle with dry chemical agent.
- Secure fuel sources.
- Extinguish a fuel spill using an ARFF vehicle turret.
- Deploy and operate an ARFF vehicle handline to extinguish a fuel spill fire.
- Extinguish a three-dimensional fuel fire with handline(s).
- Attack an interior fire.
- Extinguish an APU/EPU or engine fire.
- Extinguish a wheel assembly fire with a handline.
- Perform various road tests in an ARFF apparatus.
- Perform various driving exercises.
- Engage power to the ARFF pump.
- Produce a fire stream from an ARFF apparatus turret device.
- Produce a fire stream from an ARFF apparatus turret device while modulating/pumping and rolling.
- Implement initial triage of the victims of an aircraft accident or incident.

### FRC 015:

Fire Apparatus Drive\Operator - Airport Firefighter

After completing the course the trainees will have met the firefighting apparatus in NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. Trainees who successfully complete the certification process will be certified as an Airport Driver/ Operator.

#### **Learning Activities**

- Resupply an ARFF vehicle with water.
- Resupply an ARFF vehicle with Foam.
- Resupply an ARFF vehicle with dry chemical agent.
- Perform various road tests in an ARFF apparatus.
- Perform various driving exercises.
- Engage power to the ARFF pump.
- Produce a fire stream from an ARFF apparatus turret device.
- Produce a fire stream from an ARFF apparatus turret device while modulating/pumping and rolling.
- Implement initial triage of the victims of an aircraft accident or incident.

#### Who should attend?

Fire and Rescue employees.

#### **■ இ** Assessment and Certification

Passing Grade is 70% of the final exam.

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#### **Prerequisites**

Airport Firefighter

#### What will you learn?

verified.

Perform the routine tests, inspections, and servicing functions to an ARFF vehicle and the manufacturer's servicing, testing, and inspection criteria, and policies and procedures of the jurisdiction, so that the operational status of the vehicle is

Operate an ARFF vehicle, given a predetermined route on an airport that includes the maneuvers and operation in

all aircraft movement areas, so that the vehicle is operated in compliance with all applicable federal, state/provincial, and local laws, departmental rules and regulations.

Produce a fire stream while the vehicle is in both forward and reverse power modulation, given a discharge rate and intended target, so that the pump is

engaged, the turrets are deployed, the agent is delivered to the intended target at the correct rate, and the apparatus is moved and continuously monitored for potential problems.

#### What is covered?

- Apparatus.
- Driver/Operator.

#### Course Language

- English
- Arabic



#### **Duration**

5 days

## FRC 016: Fire Inspector I

After completing the course the trainees will have met the sections required for a Fire Inspector I in NFPA 1031 Standard on Professional Qualifications for Fire Inspector and Plan Examiner. Trainees who successfully complete the certification process will be certified as a Fire Inspector I.

#### **Learning Activities**

- Determine how to check Fire systems.
- Determine methods of Writing report
- Determine methods of maintaining fire risk
- Identify the proper procedures to maintain safety.
- Evaluate students given a checklist

#### Assessment and Certification

Passing Grade is 70% of the final exam

#### Prerequisites

Hazardous Material Awareness Level.

#### Course Language

English

#### **Duration**

■ 10 days

#### What is covered?

- Duties & authority
- Standard, Codes and Permits
- Fire Behavior
- Building construction
- Fire suppression system
- Fire detection & alarms system
- Fire hazard
- Site access
- Plans review
- Inspection procedures

#### Who should attend?

• Fire and Rescue employees

#### What you will learn?

Prepare inspection reports, given agency policy and procedures, and observations from an assigned field inspection, so that the report is clear and concise and reflects the findings of the inspection in accordance with applicable codes and standards and the policies and procedures of the jurisdiction.

Recognize the need for a permit, given a situation or condition, so that requirements for permits are communicated in accordance with the applicable codes and standards and the policies of the jurisdiction.

Fire safety inspections of new and existing
 structures and properties for construction, occupancy, fire protection.

Identify the occupancy classification of single-use occupancy, given a description of the occupancy and its use, so that the classification is made according to the applicable codes and standards.

Inspect means of egress elements, given observations made during a field inspection of an existing building, so that means of egress elements are maintained in compliance with applicable codes and standards and all deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction.

Determine the operational readiness of existing fixed fire suppression systems, given test documentation and field observations, so that the systems are in an operational state, maintenance is documented, and deficiencies are identified, documented, and reported in accordance with the applicable

codes and standards and the policies of the

iurisdiction.

Recognize hazardous conditions involving equipment, processes, and operations, given field observations, so that the equipment, processes, or operations are conducted and maintained in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction.

Recognize a hazardous fire growth potential in a building or space, given field observations, so that the hazardous conditions are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction.

## FRC 017: Fire Instructor I

After completing the course the trainees will have met the sections required for a Fire Instructor I in NFPA 1041. Fire Instructor I is designed to teach firefighters the knowledge and ability to deliver instruction effectively from a prepared lesson plan, including instructional aids and evaluation instruments; adapt lesson plans, reporting, and administration and grading of test.

#### **Learning Activities**

- Determine how information is gathered and processed.
- Determine methods of identifying student knowledge level and modifying class activities.
- Determine methods of maintaining class continuity.
- Prepare an outline over a given skill sheet.
- Determine the positives and negatives of various classroom arrangements.
- Determine time needed to comprehend a
- Identify the proper procedures to maintain safety.
- Evaluate students given a checklist. Report writing.

#### Who should attend?

Fire and Rescue employees.

#### What is covered?

- The Instructor as a Professional.
- Principles of Learning.
- Instructional Planning.
- Instructional Materials and Equipment.
- Learning Environment.
- Classroom Instruction.
- Skills-Based Training Beyond the Classroom.
- Testing and Evaluation.
- Records, Reports, and Scheduling.



#### **Assessment and Certification**

Approved by GACA.



#### **Prerequisites**

None.



#### ু Course Language

English.



#### **Duration**

10 days.

#### What you will learn?

- The foundations of learning.
- The characteristics of adult learners.
- The three domains of learning.
- The different styles of learning.
- Instructional strategies used in fire and emergency services.
- Instructional preparation as it relates to training aid selection, class continuity, and class consistency.
- Instructional materials and equipment and how they are used in the classroom and training environments.
- The classroom instruction, settings
   and arrangements, and training ground environments.
- Skills-based training and safety.

  The classifications of tests and evaluation.
- Records, reports, and scheduling.



Hazardous Materials Technician

After completing the course the trainees will have met the sections required for a Hazardous Materials Technician in NFPA 472, Standard on Professional Competence of Responders to Hazardous Materials/ Weapons of Mass Destruction Incidents. Trainees who successfully complete the certification process will be certified as a Hazardous Materials Technician.

#### What you will learn?

- Classify hazardous materials/WMD and verify the presence and concentrations of hazardous materials through detection, monitoring, and sampling.
- Analyze the Incident.
- Response Planning.
- Action Plan Implementation.
- Evaluating and Reporting Progress.
- Terminating the Incident.

#### Who should attend?

Fire and Rescue employees

#### What is covered?

- Review of Awareness, Operations, and Technician-Level Competencies
- Scene Management
- Chemical and Physical Properties
- Chemistry and Hazards of Hazardous Materials and Weapons of Mass Destruction
- Exposure Assessment and Toxicology
- Hazard and Response Information
- Hazard Detection and Monitoring
- Personal Protective Equipment
- Decontamination
- Container Identification, Design, and Construction
- **Product Control**
- Incident Demobilization and Termination

#### **Assessment and Certification**

Passing Grade is 70% of the final exam



#### **Prerequisites**

Hazardous Material Operation.



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English



#### **Duration**

10 days

#### **Learning Activities**

- Perform the duties of an assigned function within the ICS.
- Complete emergency response plan reports.
- Develop a site safety and control plan.
- Determine characteristics of hazardous materials.
- Perform maintenance and testing on monitoring equipment, test strips, and reagents.
- Demonstrate the use of a multi-gas meter
- (carbon monoxide, oxygen, combustible gases, multi gas and others) to identify hazards.
- Demonstrate the use of pH meters to identify hazards.
- Demonstrate the use of colorimetric tubes to identify hazards.
- Demonstrate the use of pH paper to identify hazards.
- Demonstrate the use of reagent test strips to identify hazards
- Demonstrate the use of radiation detection instruments to identify hazards.
- Demonstrate the use of passive dosimeters to identify hazards.
- Demonstrate the use of photoionization and flame ionization detectors to identify hazards.
- Demonstrate the use of WMD detectors(chemical and biological) to identify hazards.
- Collect samples of a hazardous material solid, liquid, or gas.

- Don, work in, and doff self-contained breathing apparatus (SCBA).
- Don, work in, and doff liquid splash-protective clothing.
- Don, work in, and doff vapor-protective clothing.
- Inspect, test, and maintain PPE.
  - Perform mass decontamination operations involving ambulatory and nonambulatory victims.
- Perform technical decontamination operations in support of entry operations.
- Perform technical decontamination operations involving ambulatory and nonambulatory victims.
- Control a leak using a dome cover clamp.
- Contain a leak from a fusible plug using an "A" kit.
- Contain a leak from a fusible plug using a "B" kit.
- Control a chlorine leak from fusible plug threads using an "A" kit.
- Control a leak from fusible plug threads using a "B" kit.
- Control a chlorine leak from a cylinder sidewall using an "A" kit.
- Control a leak from a cylinder sidewall using a "B" kit.
- Control a chlorine leak from a valve blowout using an "A" kit.
- Control a leak from a valve blowout using a "B" kit.

- Control a chlorine leak from a valve gland using a "C" kit.
- Control a chlorine leak from valve inlet threads using an "A" kit.
- Control a leak from valve inlet threads using a "B" kit.
- Control a chlorine leak from a valve seat using an "A" kit.
- Control a leak from a valve seat using a "B" kit.
- Control a chlorine leak from a valve stem blowout using an "A" kit.
- Control a leak from a valve stem blowout using a "B" kit.
- Contain a drum leak from a bung.
- Control a drum leak from a chime.
- Control a drum leak from a forklift puncture.
- Control a drum leak from a nail puncture.
- Overpack a drum using the slide-in method.
- Overpack a drum using the rolling slidein method.
- Overpack a drum using the slip-over method.

## FRC 019: Fire Officer I

After completing the course the trainees will have met the sections required for a Fire Officer I in NFPA 1021. This course is designed to prepare the trainees for a Fire Officer I certification process. The course can also be used, in whole or part, as refresher training. As the course instructor, you have an essential role in ensuring the success of the training experience for each participant.

#### Who should attend?

Fire and Rescue employees.



#### **■** Assessment and Certification

Passing Grade is 70% of the final exam.



#### **Prerequisites**

- Firefighter II.
- Fire Instructor I.



#### Course Language

English.



#### **Duration**

20 days.

#### What is covered?

- Transition to the Role of Company Officer.
- Leadership.
- Supervision.
- Logic, Ethics, and Decision-Making.
- Legal Responsibilities and Liabilities.
- Interpersonal Communications.
- Oral Communications.
- Written Communications.
- Administrative Functions.
- Safety and Health Issues.
- Organizational Structure.
- Company-Level Training.
- Human Resources Management.
- Labor/Management Relations.
- Community Relations and Public Fire and Life-Safety Education.
- Records Management.
- Preincident Planning.
- Incident Scene Communications.
- Incident Scene Management.
- Incident Scene Operations.
- Post-Inciden t Activities.

#### What you will learn?

Ability to effectively communicate in writing utilizing technology provided by the AHJ; write reports, letters, and memos; operate in an information management system; and effectively operate at all levels in the incident management system utilized by the AHJ.

- Human Resource Management.
  - Implement a community risk reduction (CRR) plan at the unit level, given an AHJ CRR plan, and policies and procedures, so that a community need is addressed.
- Administrative functions and the implementation of departmental policies and procedures at the unit level, according to the following job performance requirements.
- Conducting inspections to identify hazards and address violations, conducting pre-incident plans, performing a fire investigation to determine area of origin and preliminary cause, securing the incident scene, and preserving evidence, according to the following job performance requirements.
- Supervising emergency operations and deploying assigned resources in accordance with the local emergency plan and according to the following job performance requirements.
  - Integrating health and safety plans, policies, procedures, and standards into daily activities as well as the emergency scene, including determining appropriate levels of personal protective equipment to ensure a work environment that is in accordance with health and safety plans for all assigned members.

#### **Learning Activities**

- Apply the Interpersonal Communication Model to an Emergency Situation Scenario
- Apply the Interpersonal Communication Model to a Nonemergency Situation
- Write a Letter, Memo, and E-mail Relating to the Fire Service
- Write a News Release over a Fire and Emergency Services Event
- Write a Report on a Specific Fire Department Topic
- Apply the Customer Service Concept to a Citizen Inquiry
- Given a Scenario, Recommend Changesto an Existing Policy or Implement a New Departmental Policy
- Prepare a Budget Request for a Specific Fire Need
- Given Safety Scenarios, Identify Hazards
- Complete an Initial Accident Investigation
- Direct Employees (Crew Members) During a Training Evolution
- Respond to Scenarios About Human Resources Policies and Procedures
- Respond to Scenarios About Community Needs
- Respond to Scenarios About Concerns of Citizens
- Apply the Process of Preincident Planning to a Facility
- Apply the NIMS-ICS Model to an Emergency Incident Plan
- Implement an Incident Action Plan at an Emergency Scene
- Apply the Evaluation Process to the Fire Cause and Determination Task
- Conduct a Post incident Analysis

## FRC 020:

Incident Safety Officer

After completing the course, the trainees will have met the sections required for a NFPA 1521.

#### What you will learn?

- Establish or assume the role of Safety Officer within an ICS.
- Manage the transfer of Safety Officer duties at an incident.
- Develop a safety action plan that identifies protective or corrective actions.
- Apply technical knowledge of safety and health.
- Acquire workspace and resources to perform the assigned duties of the Safety Officer.
- Communicate an incident health and safety plan to personnel operating at an incident.
- Identify situations affecting responder health and safety.
- Conduct a safety and health investigation of an accident.
- Manage the workflow process and set time schedules to accomplish duties.

Supervise the demobilization of the Safety Officer.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### Who should attend?

Fire and Rescue employees.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Fire Officer I.



#### □ Course Language

English.



#### **Duration**

5 days.

## FRC 021:

Telecommunication I

After completing the course, the trainees will have met the sections required for a NFPA 1061 - Public Safety Telecommunicator I. This course is designed to prepare the trainees for a Telecommunicator I certification process.

#### What you will learn?

- Verbal communication process.
- Local area dispatch protocol system(s) as defined by the AHJ.
- Utilize nonverbal communications.
- Policies, procedures, guidelines and protocols established by the AHJ.
- Incident categories, priority levels, identification of potential threats, risks, and hazards.
- Available resources, agency jurisdictions, and boundaries.
- Familiarity with maps, databases, and resource lists.
- Relay instructions, information, and directions.
- Relay information to other telecommunications personnel or entities.
- Respond to requests for information.
- Knowledge of emotional and behavioral health distress signs and symptoms.

#### **Learning Activities**







Group exercises



Individual exercises







Presentation

#### Who should attend?

- Fire Alarm Operator.
- Airport Fire Officer.

#### 

Passing Grade is 70% of the final exam.



#### **Prerequisites**

None.



#### **Course Language**

English.



#### **Duration**.

10 days

#### What is covered?

- Evolution and Scopa of Public Safety Communications.
- Early Notification History.
- Town Crier.
- Watchmen and Watchtowers.
- Equipment Development.
- Telegraph Alarm Systems.
- Telegraph Box Systems.
- Dispatching Systems.
- Telephone Communications.
- Universal Number.
- Radio Communications.
- Dispatching.
- Telecommunications Center Development.
- Direct Service Provider.
- Customer Service.
- Planning for Construction of Facilities and Systems.
- Dispatch and Deployment Organization
- Telephone Systems.
- Qualities of a Telecommunicator.
- Behavioral Traits.
- Call-Taking Skills.
- Telephone Techniques.
- Telecommunication Skills.
- Basic Dispatch Requirements.
- Dispatching Protocol.
- Using Verbal and Nonverbal System.
- Tactical Operations.
- Fire Service Operations for the Telecommunicator.

## FRC 022:

Telecommunication II

After completing the course, the trainees will have met the sections required for a NFPA 1061 - Public Safety Telecommunicator I. This course is designed to prepare the trainees for a Telecommunicator II certification process.

#### **Learning Activities**







Lectures

Group exercises

Individual exercises





Simulation Presentation

#### What is covered?

- **Evolution and Scope of Public Safety** Communications.
- Facilities, Mechanical System, and Organizations.
- Radio Systems.
- Alarm systems.
- Dealing with Suicidal Callers.
- Other Calls Requiring Special Handling.
- Dispatching Skills/Radio Broadcasting.

#### Who should attend?

Fire and Rescue employees.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Telecommunication I.



#### **Course Language**

English.



#### **Duration**

10 days.

#### What you will learn?

- Basic radio systems, technology, and standard terminology used by the AHJ.
- Response to audio and visual stimuli.
- Familiarity with alarm equipment and system operation and technology.
- Policies, procedures, guidelines, and protocols related to the allocation of resources.
- Capabilities and functions of personnel, units, specialized equipment and tools.
- Operational principles, practices, procedures, guidelines and protocols of alarm systems provided in the public safety communications center.
- Policies, procedures, guidelines, and protocols related to call prioritization, incident categories, and priority levels.
- Procedures for the allocation or assignment of resources and requesting of mutual aid.
- Applicable FCC rules, radio procedures and protocols, codes, agency policies,

Procedures and guidelines.

Initiate deployment of response units, given the validated and prioritized request for service and the agencies' telecommunications equipment, so that service request information is conveyed to units designated for response.

- Relay service request information, given available resources and telecommunications equipment, so that all pertinent information is communicated to all responding units and agencies.
- Understanding agency policies,procedures, and guidelines, and accessing other resources as requested.
- Activate the community emergency action plan, given data indicating the likelihood or onset of a critical situation beyond the normal scope of operations so that they implementation is timely and in accordance with agency policies, procedures, guidelines, and protocols.
- Activate the public safety communication center emergency action plan.

## FRC 023:

Basic fire safety

After completing the course, the trainees will have met the sections required for a NFPA 1001.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What you will learn?

- Describe physical and chemical changes of matter related to fire.
- Discuss modes of combustion, the fire triangle, and the fire tetrahedron.
- Explain the difference between heat and temperature.
- Describe sources of heat energy.
- Discuss the transmission of heat.
- Explain how the physical states of fuel affect the combustion process.
- Explain how oxygen concentration affects the combustion process.
- Discuss the self-sustained chemical reaction involved in the combustion process.
- Describe common products of combustion.
- Distinguish among common classifications of fires.
- Describe the stages of fire development within a compartment.
- Summarize factors that affect fire development within a compartment.
- Describe methods used to control and extinguish fire.

#### Who should attend?

- Public.
- Fire and Rescue employees.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

None.



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#### **Duration**

2 davs.

## FRC 024:

**FRC Airport Orientation** 

After completing the course, the trainees will have met the sections required for a NFPA 1003.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What you will learn?

- Identify applicable airport features and traffic pattrens.
- Understand the air traffic pattrens within the vicinity of the airport.
- Describe Runway/Taxiway Designation Systems.
- Explain Airport Lighting, Marking and Signage System.
- Explain Airport Layout.

#### Who should attend?

Fire and Rescue employees

#### **■** Assessment and Certification

Passing Grade is 70% of the final exam.



#### **Prerequisites**

None.



#### **△** Course Language

English.



#### **Duration**

1 day.

## FRC 025:

TIBA Procedures for FAO

After completing the course, the trainees will have met the sections required for ICAO.

#### **Learning Activities**



Lectures



exercises



exercises



Presentation Individual

#### What you will learn?

- Apply TIBA Procedures for landing aircraft.
- Apply TIBA Procedures for departing aircraft.
- Apply emergency procedures in uncontrolled airspace.
- Discuses Fire and Rescue procedures.

#### Who should attend?.

Fire and Rescue employees



#### **= ♀** Assessment and Certification

Passing Grade is 70% of the final exam.



#### **Prerequisites**

Preferably Possess Competency Level 4 in English Language.



#### □ Course Language

English.



#### **Duration**

1 day

### FRC 026:

Aerodrome Emergency Plan

After completing the course, the trainees will have met the sections required for ICAO.

#### **Learning Activities**







exercises



Individual exercises



Presentation

#### What you will learn?

- Identify emergency plan.
- Explain type of emergency.
- Know purpose of emergency plan.
- Know mutual aid agreement.
- Identify permanent and mobile command post.
- Know emergency rendezvous points.
- Explain medical sorting plan.
- Identify security cordon.
- Know incident termination.
- Know AEP committee.

#### Who should attend?

- Fire and Rescue employees.
- Airport Staff.

#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

None.



#### **△** Course Language

English.



#### **Duration**

1 day.

## FRC 027:

Introduction to ARFF

After completing the course the trainees will have met the sections required for an Airport Fire Fighter in the NFPA 1003 Standard for Airport Fire Fighter Professional Qualifications. Trainees who successfully complete the certification process will be certified as an Airport Fire Fighter.

#### What you will learn?

- Implementing the response involves the timely arrival at an incident or accident and the capability to perform emergency.
- Perform an airport operation, given an assignment, a hazardous condition, and the airport policies and procedures, so that unsafe conditions are detected and reduced in accordance with the airport policies and procedures.
- Attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property.
  - Gain access into and out of an aircraft through normal entry points and emergency hatches, secure and shut down the aircraft, and assist in the evacuation process while operating as a member of a team, given approved PPE and an assignment, so that passenger evacuation and rescue can be accomplished.
- Implement initial triage of the victims of an aircraft accident, given PPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to protocol.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- Qualifications for Aircraft Rescue and. Fire Fighting Personnel.
- Airport Familiarization.
- Aircraft Familiarization.
- Safety and Aircraft Hazards.
- Rescue.
- Extinguishing Agents.
- Apparatus.
- Fire Suppression, Ventilation, and Overhaul.
- Driver/Operator.
- Airport Emergency Planning.
- Strategic and Tactical Operations.

#### Who should attend?

Fire and Rescue Employees.



#### **Assessment and Certification**

Passing Grade is 70% of the final exam.



#### **Prerequisites**

None.



#### **Course Language**

Arabic.



#### **Duration**

5 days.

#### **Learning Activities**

- Use a grid map to respond to the site of an aircraft incident/accident.
- Obtain a clearance from ground control using phonetic alphabet and aviation terminology.
- Recognize hazardous conditions at an aircraft incident/accident and initiate corrective action.
- Implement initial triage of the victims of an aircraft accident or incident.
- Stabilize an aircraft using webbing, ropes, chains or come-along (cable winch).
- Deploy an air stairs unit (aircraft passenger stairs).
- Open aircraft doors and hatches.
- Cut an access opening in the skin of an aircraft (power saw).
- Use hydraulic tools (cutters and/or spreaders) to open a hole in the side of an aircraft.
- Perform operations to safety and shut down an aircraft.
- Demonstrate the procedure for conducting a primary search of an aircraft after self-evacuation.
- Use a hydraulic device to remove a seat from an aircraft.
- Resupply an ARFF vehicle with water.
- Resupply an ARFF vehicle with Foam.

- Resupply an ARFF vehicle with dry chemical agent.
- Secure fuel sources.
- Extinguish a fuel spill using an ARFF vehicle turret.
- Deploy and operate an ARFF vehicle handline to extinguish a fuel spill fire.
- Extinguish a three-dimensional fuel fire with handline(s).
- Attack an interior fire.
- Extinguish an APU/EPU or engine fire.
- Extinguish a wheel assembly fire with a handline.
- Perform various road tests in an ARFF apparatus.
- Perform various driving exercises.
- Engage power to the ARFF pump.
- Produce a fire stream from an ARFF apparatus turret device.
- Produce a fire stream from an ARFF apparatus turret device while modulating/pumping and rolling.
- Implement initial triage of the victims of an aircraft accident or incident.

