Fire and Rescue
Training Center

الأكاديمية
السعودية للطيران المدني
Saudi Academy of Civil Aviation

GACA®
الهيئة العامة للطيران المدني
General Authority of Civil Aviation

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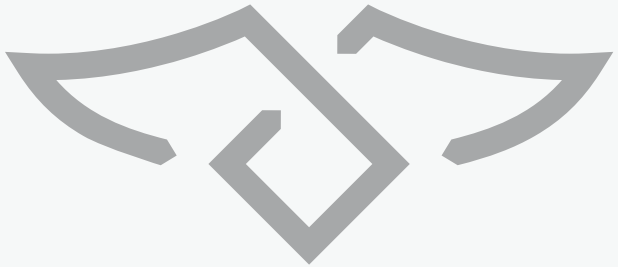
Contents

SACA Fire and Rescue

Programmes



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 27 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 Competencies-Personal Protective Equipment's - Product Control).
.First Aid
.Fire Apparatus Driver\Operator (General – pumper - mobile water supply - Aircraft Rescue and Firefighting).
.Airport Rescue and Firefighting
.Hazardous Materials Technician
.Fire Inspector I
.Fire Officer I
.Fire Instructor 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).

Course

HazMat Awareness Level

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• Course Summary

- 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 you will learn?

Chapter 1

- Define a hazardous materials incident.
- Describe roles and responsibilities of first responders in hazardous materials incidents.
- Recognize ways that hazardous materials harm people.
- List hazardous materials regulations definitions, and statistics.

Chapter 2

- Restate the seven clues to the presence of hazardous materials.
- Explain how preincident plans, occupancy types, and locations may indicate the presence of hazardous materials.
- Identify basic container shapes that indicate the presence and hazards of hazardous materials.
- Describe ways that U.S. transportation placards, labels, and markings indicate the presence and hazards of hazardous materials.
- Describe ways that Canadian transportation placards, labels, and markings indicate the presence and hazards of hazardous materials.
- Describe ways that Mexican transportation placards, labels, and markings indicate the presence and hazards of hazardous materials.
- Identify other markings and colors that indicate the presence of hazardous materials.
- Describe ways written resources are used to identify hazardous materials and their hazards.
- Explain the limited role of the five senses for identifying hazardous materials.
- Explain the role of monitoring and detection devices for Awareness Level personnel.

Chapter 3

- Recognize notification procedures.
- Describe ways first responders use the Emergency Response Guidebook at hazardous materials incidents.
- Explain the role of first responders in initiating protective actions.
- Identify actions that Awareness level personnel should take when responding to terrorist incidents.
- 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.

• Learning Activities

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

• Who should attend?

- Public
- Firefighter
- Airport firefighter
- Airport Fire Officer

• Course Language.

- English
- Arabic

• Duration.

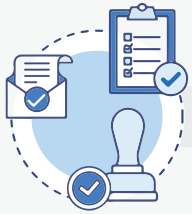
- 1 day

• What is covered?

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

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- None

Course

HazMat Operations Level (Core)

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• Course Summary

- 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 you will learn?

Chapter 1

- Identify states of matter as they relate to hazardous materials.
- Explain physical properties that aid in identifying potential hazards and predicting behavior of hazardous materials.
- Explain chemical properties that aid in identifying potential hazards and predicting behavior of hazardous materials.
- Define the hazard classes.
- Describe actions taken to gather sufficient information to identify the hazardous material(s) / substance(s) involved in a hazmat incident.

Chapter 2

- Describe methods of identifying potential outcomes.
- Explain the role of the General Hazardous Materials Behavior Model in predicting the behavior of containers.
- Recognize general container types and their associated behaviors.
- Describe the types of bulk facility storage tanks and their associated hazards.
- Describe the types of cargo tank trucks and their associated hazards.
- Describe the types of tank cars and their associated hazards.
- Describe the types of intermodal tanks and their associated hazards.
- Describe types of bulk transportation containers and their associated hazards.
- Describe other types of bulk and nonbulk containers and their associated hazards.
- Analyze a hazardous materials scenario to identify potential hazards.

Chapter 3

- Explain predetermined procedures.
- List incident priorities for hazardous materials incidents.
- Describe the process of size-up and hazard and risk assessment.
- Define hazardous materials incident levels.
- Explain the three modes of operations at
- hazardous materials incidents.
  Identify methods for planning the initial response.
- Distinguish common response objectives and action options at hazardous materials incidents.
- Identify actions available at a hazardous materials incident.

Chapter 4

- Describe the NIMS-ICS organizational functions that help initiate incident management.
- Describe secondary NIMS-ICS organizational functions.
- Explain ways of implementing response objectives and action options.
- Identify processes for evaluating progress.
- Provide scene control at a hazardous materials incident.
- Evaluate and report progress made at a hazardous materials incident.

Chapter 5

- Define terrorism.
  Explain ways of identifying terrorist attacks.
- Describe the range of tactics that may be used in a terrorist attack.
- Identify indicators and types of explosive attacks and devices.
- Identify indicators and types of chemicalattacks.
- Identify indicators and types of biological attacks.
- Identify indicators and types of possible radiological attacks.
- Identify general hazards at illicit laboratories.
- Recognize illegal hazmat dumps.
- Describe hazmat operations after disasters.

• 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.

• Who should attend?

- Firefighter
- Airport firefighter
- Airport Fire Officer

• Course Language.

- English
- Arabic

• Duration.

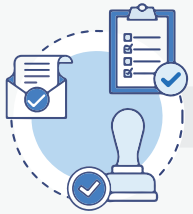
- 1 day

• 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

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Hazmat Awareness

Course

HazMat Operations Level (PPE)

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• Course Summary

- 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 you will learn?

Chapter 1

- Describe respiratory protection used at hazardous materials incidents.
- Explain varieties of protective clothing worn at hazardous materials incidents.
- Describe personal protective equipment ensembles used during hazardous materials incidents.
- Explain PPE related stresses.
- Describe procedures for safely using PPE.
- Identify procedures for inspection, storage testing, maintenance, and documentation of PPE.
- Select appropriate PPE to address a hazardous materials scenario.
- Don, work in, and doff structural fire fighting 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.

• Learning Activities

- Select appropriate PPE to address a hazardous materials scenario.
- Don, work in, and doff structural fire fighting 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.

• Who should attend?

- Firefighter
- Airport firefighter
- Airport Fire Officer

• Course Language.

- English
- Arabic

• Duration.

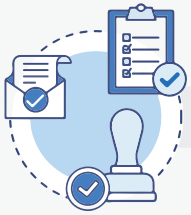
- 1 day

• Assessment and Certification.

- Passing Grade is 70% of the final exam

• What is covered?

- Implementing the Response: Personal Protective Equipment



• Prerequisites

- HazMat Operations Level (Core)

Course

Hazmat Operation Level (Product Control)

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• Course Summary

- 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) ١٠٧٢, professional qualifications standard. Students who successfully complete the certification process will be certified as an Operations (PC) Level first responder.

• What you will learn?

Chapter ١

- Describe methods of spill control.
- Describe methods of leak control.
- Describe methods of fire control at a hazardous materials incident.
- 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.

• 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

• Who should attend?

- Firefighter
- Airport firefighter
- Airport Fire Officer

• Course Language.

- English
- Arabic

• Duration.

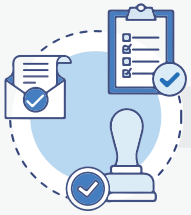
- 2 day

• Assessment and Certification.

- Passing Grade is 70% of the final exam

• What is covered?

- Implementing the Response: Mission-Specific Product Control



• Prerequisites

- Hazardous Material Operations Level (PPE)

Course

Firefighter I

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• Course Summary

- 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 you will learn?

Chapter 1

- Summarize the history of the fire service.
- Explain the organizational characteristics, cultural challenges, and cultural strengths that influence the fire service.
- Describe the mission of the fire service.
- Describe the organization of fire departments.
- Distinguish among functions of fire companies.
- Summarize primary knowledge and skills the firefighter must have to function effectively.
- Distinguish among the primary roles of fire service personnel.
- Describe fire department organizational principles.
- Locate information in departmental documents and standard or code materials.
- Distinguish between fire department SOPs and rules and regulations.
- Explain the ways the fire service may interact with other organizations.

Chapter 2

- List the main types of job-related firefighter fatalities, injuries, and illnesses.
- Describe the National Fire Protection Association® standards related to firefighter safety and health.
- Identify Occupational Safety and Health Administration (OSHA) regulations and how they relate to firefighters.
- Summarize the model that supports the concept of risk management.
- Describe fire department safety and health programs.
- Summarize firefighter health awareness issues.
- Summarize safe vehicle operations.
- Summarize guidelines for riding safely on the apparatus.
- Describe ways to help prevent accidents and injuries in fire stations and facilities.
- Explain general guidelines for tool and equipment safety.
- Describe ways to maintain safety in training.
- State the practices a Firefighter I uses for emergency scene preparedness and safety.
- Summarize general guidelines for scene management including highway incidents, crowd control, and cordoning off emergency scenes.
- Explain the importance of personnel accountability.
- 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.

Chapter 3

- Explain the procedures for receiving emergency and nonemergency external communications.
- Describe the information required to dispatch emergency services.
- Describe the systems used for internal communications.
- Explain radio limitations that may impact internal communications.
- Describe radio procedures used for internal communications.
- Handle emergency and nonemergency calls.
- Use a portable radio for routine and emergency traffic.

Chapter 4

- Describe the impact of fire on common building materials.
- Explain the impact of fire on construction classifications.
- List the main types of occupancy classifications.
- Describe the basic construction of building components.

Chapter 5

- Explain the science of fire as it relates to energy, forms of ignition, and modes of combustion.
- Describe the impact of thermal energy on heat, temperature, and heat transfer.
- Recognize the physical states of fuel.
- Explain the relationship between oxygen and life safety.
- Identify the products of self-sustained chemical reactions.
- Explain the factors that affect fire development.
- Describe the stages of fire development.
- Recognize signs, causes, and effects of rapid fire development.
- Describe the methods through which fire fighting operations can influence fire behavior.

Chapter 6

- Describe the purpose of personal protective equipment.
- Describe characteristics of each type of personal protective equipment.
- Summarize guidelines for the care of personal protective clothing.
- Explain safety considerations for personal protective equipment.
- Identify respiratory hazards.
- Identify types of respiratory protection equipment.
- Describe the limitations of respiratory protection equipment.
- Explain methods for storing respiratory protection equipment.
- Describe general donning and doffing considerations for protective breathing apparatus.
- Summarize general considerations for protective breathing apparatus inspections and care.
- Summarize safety precautions for refilling SCBA cylinders.
- Explain procedures for replacing SCBA cylinders.
- Explain safety precautions for SCBA use.
- Describe nonemergency and emergency exit indicators.

- Describe nonemergency exit techniques.
- 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.

Chapter 7

- Explain portable fire extinguisher classifications.
- Describe types of portable fire extinguishers.
- Define the ratings in a portable fire extinguisher rating system.
- Explain the considerations taken when selecting and using portable fire extinguishers.
- Identify procedures used for the inspection, care, and maintenance of portable fire extinguishers.
- Operate a stored pressure water extinguisher.
- Operate a dry chemical (ABC) extinguisher.
- Operate a carbon dioxide (CO2) extinguisher.

Chapter 8

- Compare and contrast the characteristics of life safety rope and utility rope.
- Summarize basic guidelines for rope maintenance.
- Explain reasons for placing rope out of service.
- Describe webbing and webbing construction.
- Describe parts of a rope and considerations in tying a knot.
- Describe knot characteristics and knot elements.
- Describe characteristics of knots commonly used in the fire service.
- Select commonly used rope hardware for specific applications.
- Summarize hoisting safety considerations.
- 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.

Chapter 9

- Summarize the impact of building construction and floor plans on structural search techniques.
- Explain size-up and situational awareness considerations during structural searches.
- Summarize safety guidelines for structural search and rescue.
- Differentiate between primary and secondary search techniques.
- Recognize basic search methods.
- Describe victim removal methods.
- Explain firefighter survival methods.
- Explain what survival actions firefighters can take when needed.
- Describe the actions of a rapid intervention crew or team (RIC/RIT) when locating a downed firefighter.
- 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.

Chapter 10

- Identify types of emergency scene lighting equipment.

Chapter 11

- Explain the basic principles of forcible entry.
- Describe the basic construction of locksets.
- Describe considerations a firefighter must take when using forcible entry tools.
- Indicate steps needed to care for and maintain forcible entry tools.

- Explain the ways to force entry through various types of doors.
- Identify considerations that need to be taken when forcing entry through locks padlocks, overhead doors, and fire doors.
- Describe forcible entry methods used for windows.
- Explain considerations firefighters must take when forcing entry through miscellaneous types of windows and covers.
- Describe forcible entry methods for breaching walls.
- Explain forcible entry methods for breaching floors.
- Indicate methods for forcing fences and gates.
- 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.

Chapter 12

- Describe different construction types of ground ladders.
- Identify the parts of a ladder including markings and labels.
- Recognize the types of ladders used in the fire service.
- Explain the considerations addressed by ladder inspection, cleaning, and maintenance.
- Describe safety guidelines used when handling ladders.
- Explain considerations taken when selecting, lifting, and lowering a ladder.
- Describe various methods for ladder carries.
  Identify basic considerations and requirements for ground ladder placement.
- Describe various methods for ladder raises.
- Compare procedures for moving ground ladders.

- Explain the methods used to secure ladders.
- Describe ladder climbing considerations.
- Indicate what methods can be used to work from a ladder.
- Explain methods used for assisting a victim down 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 flat-shoulder method.
- Carry a ladder – Three-firefighter flat-arm's length method.
- Carry a ladder – Two-firefighter arm's length on-edge method.
- Tie the halyard.
- 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.

Chapter 13

- Describe reasons for tactical ventilation.
- Identify considerations that affect the decision to ventilate.
- 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.

Chapter 14

- Explain the ways water supply system components are used by firefighters.
- Describe types of fire hydrants and hydrant markings.
- Explain fire hydrant operation and inspection considerations.
- Explain alternative water supply sources and methods of access.
- Describe methods used for rural water supply operations.
- 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.

Chapter 15

- Explain basic fire hose characteristics.
- Describe different causes of and prevention methods for hose damage.
- Identify basic inspection, care, and maintenance methods for fire hose.
- Compare various uses for hose appliances and tools.
- Describe basic hose rolls.
- Explain basic hose loads and finishes.
- Compare various methods to make
- preconnected hose loads for attack lines.
- Explain the methods used for supply hose lays.
- Recognize different methods for handling hoselines.
- Describe methods for advancing hoselines in various ways.
- List the considerations that can impact operating attack hoselines.
- 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.

Chapter 16

- Explain the way vaporization and steam relate to the extinguishing properties of water.
- Identify the factors that create pressure loss or gain.
- Describe the impact water hammer has on fire streams.
- Explain fire stream patterns and their possible limiting factors.
- Describe the three types of fire stream nozzles.
- Compare the different types of nozzle control valves.
- Describe the factors in operating and maintaining handline nozzles.
- Operate a fog-stream nozzle.
- Operate a broken stream nozzle.
- Operate a solid stream nozzle.

Chapter 17

- Describe initial factors to consider when suppressing structure fires.
- Summarize considerations taken when making entry.
- Describe direct attack, indirect attack, combination attack, and gas cooling techniques.
- Describe safety considerations that must be identified for upper level structure fires.
- Explain actions taken when attacking belowground structure fires.
- Discuss methods of fire control through exposure protection and controlling building utilities.
- Describe steps taken when supporting fire protection systems at protected structures.
- Explain considerations taken when deploying, supplying, and staffing master stream devices.
- Describe situations that may require suppression of Class C fires.
- Identify hazards associated with suppressing Class C fires.
- Describe actions associated with suppressing Class D fires.
- Explain actions taken when suppressing a vehicle fire.
- Compare methods used to suppress fires in stacked and piled materials, small unattached structures, and trash containers.
- Summarize the main influences on ground cover fire behavior.
- Compare types of ground cover fires.
- Describe elements that influence ground cover fire behavior.
- Identify the parts of a ground cover fire.
- Describe protective clothing and equipment used in fighting ground cover fires.
- Describe methods used to attack ground cover fires.
- Summarize safety principles and practices when fighting ground cover fires.
- 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.

Chapter 18

- Explain the philosophy of loss control.
- Describe the ways preincident planning impacts loss control.
- Determine appropriate salvage procedures.
- Compare and contrast different types of salvage covers.
- Explain ways to fold, roll, spread, and improvise with salvage covers.
- Describe ways to cover openings during salvage operations.
- Explain methods used to maintain fire safety during overhaul.

- Describe factors that influence locating hidden fires.
- Identify different overhaul procedures.
- Indicate the ways a thermal imager can be used during overhaul.
- 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.

Chapter 19

- Explain ways to recognize obvious signs of the area of origin.
- Describe the relationship between fire cause classifications and cause determination.
- Recognize signs of arson.
- Describe the importance of preserving evidence.
- Explain techniques for preserving evidence.

Chapter 20

- Explain the steps taken during fire and life safety program development.
- Describe the components involved in fire and life safety program delivery.
- Explain the impact of safety hazards, messages, and target audiences on creating fire and life safety education programs.
- Indicate ways to identify and prevent fire setter development.
- Describe the role of a Firefighter I in enforcing fire and life safety codes.
- For those including Emergency Medical Services training

Chapter 21

- Describe the roles the fire service may take in providing emergency medical care.
- Summarize patient confidentiality requirements.
- Distinguish among commonly encountered communicable diseases.
- Summarize immunization considerations for first responders.
- Explain the importance of body substance isolation (BSI).
- Explain actions taken for basic patient assessment.
- Compare and contrast CPR techniques for adults, children, and infants.
- Explain when to administer and when to discontinue CPR.
- Describe basic types of external bleeding.
- Explain the use of direct pressure and elevation to control external bleeding.

- Describe the signs and symptoms of internal bleeding.
- Describe the role that recognizing the types, signs, and symptoms of shock plays in shock management.
- For those including Hazardous Materials training

Chapter 22

- Recognize introductory information regarding hazardous materials.
- Explain the six types of hazardous materials hazards.
- Describe routes of entry for hazardous materials.
- Describe the physical properties of hazardous materials.
- Explain the six stages of the General Emergency Behavior Model (GEBMO) used to describe typical hazardous materials events.
- Identify the seven categories of clues to the presence of hazardous materials/weapons of mass destruction.
- Describe the written resources used to identify hazardous materials.
- Explain the ways to safely use the five senses, along with monitoring and detection equipment, to detect the presence of hazardous materials.
- Identify common indicators of terrorist attacks.
- Describe the common indicators and types of illicit laboratories.
- Explain ways to protect against secondary attacks and booby traps.

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Chapter 23

- Summarize first responder roles at haz mat/WMD incidents.
- Summarize incident priorities for haz mat/WMD incidents.
- Explain the management structure used for haz mat/WMD incidents.

- Explain the considerations that must be taken into account during the analysis stage of haz mat/WMD incidents.
- Describe the steps used for planning the appropriate response at haz mat/WMD incidents.
- Describe the process for evaluating and communicating the progress at haz mat/WMD events.
- Explain how the Emergency Response Guidebook (ERG) is used at haz mat/WMD incidents.
- Summarize the role of emergency response centers during haz mat/WMD incidents.
- Explain the considerations that must be taken when choosing personal protective equipment at haz mat/WMD incidents.
- Distinguish among the four levels of EPA defined protection.
- Describe Mission-Oriented Protective Posture (MOPP) ensembles.
- Describe the selection factors that must be considered when selecting personal protective equipment at haz mat/WMD incidents.
- Explain safety and emergency procedures used for personnel wearing protective clothing.
- Explain proper procedures for PPE inspection, storage, testing, and maintenance.
- Describe the techniques used for isolation and scene control.
- Identify basic notification considerations at haz mat/WMD incidents.
- Describe methods that help ensure the protection of responders during haz mat/WMD incidents.
- Describe methods that help ensure the protection of the public during haz mat/WMD incidents.
- Describe the considerations and limitations of emergency and technical decontamination.
- Tell what rescue actions can be taken at haz mat/WMD incidents by personnel without specialized training.
- Explain the strategic goal of spill control and confinement.
- Describe methods used to complete the strategic goal of leak control and containment.
- Summarize the actions necessary when an incident is suspected to involve terrorist activity.
- Explain how to preserve crime scene evidence.
- Explain the goals for the recovery and termination phases of haz mat/WMD incidents.
- Obtain information about a hazardous material using the Emergency Response Guidebook (ERG).
- Perform emergency decontamination.
- Perform absorption.
- Perform adsorption.
- Perform diking operations.
- Perform damming operations.
- Perform diversion operations.
- Perform retention operations.
- Perform dilution operations.
- Perform vapor dispersion.
- Perform a remote valve shutoff.

• 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 (CO_2) 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 flat-shoulder method.
- Carry a ladder – Three-firefighter flat-arm's lengthmethod.
- Carry a ladder – Two-firefighter arm’s length on-edge method.
- Tie the halyard.
- 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-firefightermethod.
- 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.

• Who should attend?

- Firefighter
- Airport firefighter

• Course Language.

- English
- Arabic

• Duration.

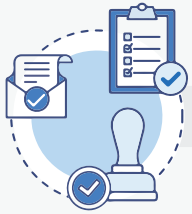
- 15 day

• 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.

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Hazmat operation level (product control)

Course

Firefighter II

الأكاديمية
السعودية للطيران المدني
Saudi Academy of Civil Aviation

GACA®
الهيئة العامة للطيران المدني
General Authority of Civil Aviation

• Course Summary

- 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 you will learn?

Chapter 1

- Describe the aspects that make up on-scene communications.
- Explain the information gathered by post incident reports.
- Create an incident report.

Chapter 2

- Explain the hazards related to building construction.
- Recognize the factors that influence structural collapse potential.

Chapter 3

- Explain considerations for maintenance of electric generators and lighting equipment.
- Describe the types of rescue tools and equipment.
- Explain the uses and limitations of each type of rescue tool.
- Identify the role of a fire department during vehicle extrication.
- Describe safety considerations that must be identified and mitigated during vehicle extrication.
- Explain the use of cribbing material during vehicle extrication.
- Describe the methods used for gaining access to victims during vehicle extrication.
- Explain the role a Firefighter II will play in technical rescue operations.
- Describe the various types of technical rescue operations.
- Explain the unique hazards associated with each type of technical rescue operation.
- 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.

Chapter 4

- Describe the safety considerations taken when service testing a fire hose.
- Service test a fire hose.

Chapter 5

- Describe the methods by which firefighting foam prevents or controls a hazard.
- Identify foam concentrates.
- Explain the factors that impact foam expansion and selection.
- Describe methods by which foam may be proportioned.
- Explain the advantages and disadvantages of various foam proportioners, delivery devices, and generating systems.
- Identify causes of poor foam production.
- Distinguish among various foam application techniques.
- Identify foam hazards and ways to control them.
- Place a foam line in service using an in-line eductor.
- Extinguish an ignitable liquid fire.

Chapter 6

- Describe considerations taken when coordinating fireground operations.
- Explain fireground roles and responsibilities a firefighter II may need to coordinate.
- Discuss the process of establishing and transferring Command.
- Describe hazards that may be present at fires in underground spaces.
- List safety precautions that should be taken at flammable/combustible liquid fire incidents.
- Recognize methods used when coordinating operations at a property protected by a fire suppression system.
- Explain ways to use water to control Class B fires.
- Compare methods used to suppress bulk transport vehicle fires and flammable gas incidents.
- Establish Incident Command and coordinate interior attack of a structure fire.
- Control a pressurized flammable gas container fire.

Chapter 7

- Describe types of evidence used to indicate the area of origin or fire cause.
- Recognize fire cause evidence.
- Explain the roles and responsibilities of responders and investigators involved in fire investigations.
- Tell what legal issues impact location and collection of evidence during a fire investigation.
- Protect evidence of fire cause and origin.

Chapter 8

- Describe fire alarm systems.
- Identify alarm initiating devices.
- Explain the ways automatic sprinkler systems work.
- Describe standpipe and hose systems.
- Explain the ways smoke management systems work.

Chapter 9 :

- Describe the role of a Firefighter II in planning for and conducting private dwelling fire safety surveys.
- Explain the components that must be
- considered when developing fire and life safety presentations.

• 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 in-line 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.

• Who should attend?

- Firefighter
- Airport firefighter

• Course Language.

- English
- Arabic

• Duration.

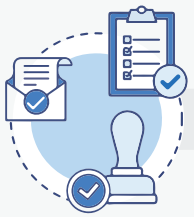
- 10 day

• 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.

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Firefighter I

Fire Apparatus Driver\Operator

General - Pumper - Mobile Water Supply

الأكاديمية
السعودية للطيران المدني
Saudi Academy of Civil Aviation

GACA®
الهيئة العامة للطيران المدني
General Authority of Civil Aviation

• Course Summary

- 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 you will learn?

Chapter 1

- Describe fire department pumpers.
- Describe initial attack fire apparatus.
- Describe mobile water supply apparatus.
- Distinguish among specialty fire apparatus.
- Identify apparatus-mounted special systems.

Chapter 2

- Explain a systematic maintenance program.
- Explain the importance of accurate documentation, reporting, and follow-up for apparatus inspections.
- Describe actions taken to ensure vehicle cleanliness.
- Summarize considerations for conducting an apparatus inspection.
- Describe actions taken to ensure batteries are operable.
- Describe general fire suppression equipment maintenance procedures.
- 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.

Chapter 3

- Identify the considerations taken when selecting qualified driver/operators.
- List driving regulations that affect apparatus driver/operators.
- Detect reasons for accidents.
- Review apparatus rider safety considerations.
- Explain considerations to take when starting, idling, and shutting down apparatus.
- Explain considerations for operation of an apparatus.
- Explain apparatus emergency response considerations.
- Describe types of emergency operations warning devices.
- Identify types of traffic control devices.
- Explain considerations when stopping and braking apparatus.
- Explain considerations when backing apparatus.
- Explain considerations when performing tillering operations.

- Describe driving exercises and evaluation methods.
- Summarize considerations for working safely on and around fire apparatus.
- 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.

Chapter 4

- Describe positioning of pumpers for fire attack.
- Describe positioning water source supply pumpers.
- Summarize apparatus positioning considerations for wildland fire attack.
- Identify considerations for special positioning situations.
- 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.

Chapter 5

- Describe the characteristics of water.
- Identify the advantages and disadvantages of water.
- Summarize facts about water pressure and velocity.
- Summarize the principles of friction loss.
- Identify how friction loss principles can be applied to the fire service.
- Identify the principles of municipal water supply systems.
- Describe private water supply systems.

Chapter 6

- Distinguish among types of fire hose nozzles.
- Identify considerations for selecting nozzles.
- Distinguish among types of special purpose nozzles.
- Summarize facts about nozzle pressure and reaction.

Chapter 7

- Summarize facts about total pressure loss.
- Identify how various hose layouts affect total pressure loss.
- Explain how to determine pump discharge pressure.
- Test hose carried on fire department apparatus to determine friction loss.

Chapter 8

- Describe flowmeters and flowmeter applications.
- Distinguish between manual and electronic hydraulic calculators.
- Describe how pump charts are used in the fire service.
- Explain how the Condensed Q formula can be used on the fireground.
- Describe the gpm flowing method.

Chapter 9

- Distinguish among types of positive displacement pumps.
- Summarize facts about the operation of centrifugal pumps.
- Distinguish among various pump mounting and drive arrangements.
- Describe intake and discharge piping.
- Summarize facts about valves used in a piping system.
- Explain the operation of automatic pressure control devices.
- Summarize facts about priming methods and devices.
- Identify characteristics of pump panel instrumentation.
- Describe types of auxiliary cooling devices.

Chapter 10

- Explain making the pump operational.
- Summarize facts about operating from the water tank.
- Explain considerations when operating from a pressurized supply source.
- Summarize facts about operating from a static water supply source.
- Describe actions taken for sprinkler and standpipe support.
- Explain actions taken when troubleshooting pumping operations.
- 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 apparatus water 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.

Chapter 11

- Explain the principles of lift.
- Summarize considerations when drafting from a natural static water supply source.
- Describe types of artificial static water supply sources.
- Dam a stream with a ladder and salvage cover.

Chapter 12

- Describe relay apparatus and equipment.
- Explain relay pumping operational considerations.
- Summarize general guidelines for relay operations.
- Describe the open relay method.
- Summarize facts about the closed relay method.
- Operate in an open relay.
- Operate in a closed relay.

Chapter 13

- Identify water shuttle apparatus.
- Summarize considerations taken for the setup of a water shuttle.
- Describe fill site operations.
- Distinguish among dump site operational methods.
- Explain methods of evaluating performance.
- 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 a multiple portable tank water shuttle dump site.

Chapter 14

- Summarize facts about principles of foam.
- Distinguish among types of foam concentrates used in fire fighting.
- Explain the operation of low energy foam proportioning systems.
- Describe high energy foam generating systems.
- Distinguish among portable foam application devices
- Identify reasons for the production of poor quality foam or the lack of foam production when using an in-line proportioner.
- Identify foam application techniques.
- Explain the environmental impact of foam.
- Identify durable agents.
- Install and operate an in-line foam educator.

Chapter 15

- Distinguish among preperformance tests for pumping apparatus.
- Summarize facts about performance testing of fire pumps.
- Describe methods for testing a foam proportioning system
- 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.

• 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.
- Perform pump operations from the apparatus water tank.
- Make the transition from the apparatus water 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 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.

• Who should attend?

- Firefighter
- Airport firefighter
- Driver/Operator

• Course Language.

- English
- Arabic

• Duration.

- 10 days

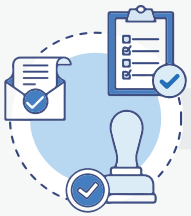
• What is covered?

- 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

- Fireground 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

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Firefighter II

Fire Apparatus Driver\Operator

Airport Firefighter

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• Course Summary

- 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.

• What you will learn?

Chapter 1

- Explain how to determine the number and appropriate types of ARFF apparatus required at an airport.
- Describe the various types and capabilities of ARFF apparatus.
- Identify the features and options included on ARFF apparatus.
- Describe types of fire suppression equipment found on ARFF apparatus.
- Identify methods of resupplying extinguishing agent to an ARFF apparatus.
- Explain procedures for ARFF apparatus maintenance.
- Resupply an ARFF vehicle with water.
- Resupply an ARFF vehicle with foam.
- Resupply an ARFF vehicle with dry chemical agent.

Chapter 2

- Identify components of an ARFF driver/operator training program.
- Describe routine inspection, testing, and service procedures for ARFF vehicles.
- Identify the principles of safe vehicle operation.
- Explain ARFF vehicle operational considerations in various environments.
- Describe agent systems and discharge
- Explain agent resupply of ARFF vehicles.
- Perform a routine walk-around maintenance inspection of an ARFF apparatus.
- Perform an engine compartment inspection and routine preventative maintenance of an ARFF apparatus
- Perform an in-cab operational inspection of an ARFF apparatus.
- Start, idle, and shut down an ARFF apparatus.
- Drive an ARFF apparatus. .
- Perform various road tests in an ARFF apparatus.
- Perform various driving exercises.
- Back an ARFF apparatus using mirrors.
- Position an ARFF apparatus.
- Engage power to the ARFF pump.
- Perform a daily operational check on an ARFF apparatus.
- 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.

• 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.

• Duration.

- 5 Days

• What is covered?

- Apparatus.
- Driver/Operator

• Who should attend?

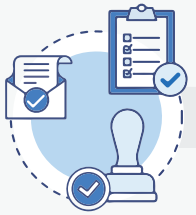
- Firefighter
- Airport firefighter
- Driver/Operator

• Assessment and Certification.

- Passing Grade is 70% of the final exam

• Course Language.

- English
- Arabic



• Prerequisites

- Firefighter II

Course

Airport Firefighter

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• Course Summary

- 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?

Chapter 1

- Explain the mission of ARFF personnel.
- Describe the history of Aircraft Rescue and Fire Fighting.
- Identify organizations that deal with air transportation.
- Identify roles and responsibilities of ARFF team members.
- Identify elements of ARFF training programs.

Chapter 2

- Describe airport familiarization training.
- Explain different airport types and classifications.
- Compare the different legs of a typical traffic pattern.
- Recognize systems used to designate runways and taxiways.
- Identify airport markings, lighting, and signage.
- Determine the impact of airport design on ARFF responses.
- Explain the importance of a central location for airport fire stations.

Chapter 3

- Identify types of aircraft.
- Describe the major components of fixed-wing and rotary-wing aircraft
- Identify types of and hazards associated with various aircraft engines.
- Explain aircraft construction, structural materials, and hazards as they relate to ARFF training and operations.
- Describe potential aircraft system hazards that firefighters may encounter.

Chapter 4

- Identify components of an airport safety program.
- Recognize the importance of firefighter safety as it relates to aircraft fire fighting.
- Describe the various types of personal protective equipment with which ARFF firefighters are equipped.
- Discuss the different types of hazards associated with aircraft emergencies.
- Identify special hazards of military aircraft
- Identify indications of a possible terrorist incident.

Chapter 5

- Describe types of airport alerts.
- Explain the functions of an Emergency Operations Center and Mobile Command Posts.
- Identify airport communication systems.
- Describe airport communication procedures.
- Explain light and hand signals used in ARFF communications.

Chapter 6

- Recognize safety considerations for the use of ARFF rescue tools and equipment.
- Identify tools and equipment used in ARFF rescue operations.
- Describe procedures for ARFF rescue in various environments.
- Describe tactics for ARFF rescue operations.
- Identify procedures for accessing the interior of an aircraft.
- Explain ways to safety and shut down an aircraft.
- Describe the components of victim rescue in an ARFF response.
- Stabilize an aircraft using webbing, ropes chains or a 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.

Chapter 7

- Explain the use of primary and complementary extinguishing agents in ARFF operations.
- Describe the use of water as an extinguishing agent in ARFF operations.
- Explain the principles of foam used to combat aircraft and fuel fires.
- Identify categories and characteristics of foam concentrates.
- Explain how foam is proportioned.
- Identify various devices used for foam application.
- Describe types of dry chemicals and their applications in ARFF operations.
- Describe types of clean agents and their applications in ARFF operations.
- Explain methods of conserving and resupplying extinguishing agents used in ARFF responses.

Chapter 8

- Identify fire suppression techniques.
- Describe methods of ventilation in an aircraft fire.
- Describe overhaul operations after an aircraft incident/accident.
- Explain the importance of evidence preservation during overhaul operations.
- 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.

Chapter 9

- Describe administrative responsibilities in relation to ARFF services.
- Identify the components of an Airport/Community Emergency Plan.
- Explain factors to consider when developing an Airport/Community Emergency Plan.
- Identify emergency response considerations.
- Describe procedures for ARFF response to various emergencies.
- Explain training considerations for mutual aid and support personnel and joint training exercises.
- Identify the components of an Airport/Community Emergency Plan review.

Chapter 10

- Identify components of and training for the National Incident Management System-Incident Command System (NIMS-ICS).
- Describe strategies and tactics for various in-flight emergencies.
- Describe strategies and tactics for various ground emergencies.
- Identify types and characteristics of low-impact crashes.
- Identify types and characteristics of high-impact crashes.
- Explain procedures for aircraft emergency responses.
- Explain actions to take and factors to consider when responding to accidents involving military aircraft.
- Explain considerations for responding to aircraft accidents/incidents involving hazardous materials.

- 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.

• 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.

• Who should attend?

- Firefighter
- Airport firefighter

• Course Language.

- English
- Arabic

• Duration.

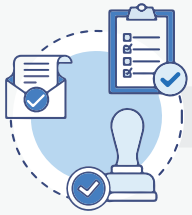
- 20 day

• 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.

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Firefighter II

Course

Hazardous Materials Technician

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• Course Summary

- 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?

Chapter 1

- Describe NFPA 472 competencies for the Awareness-Level responder.
- Identify NFPA 472 competencies for the Operations-Level responder.
- Explain NFPA 472 competencies for the Technician-Level responder.

Chapter 2

- Explain various roles within an Incident Command System (ICS).
- Describe the Haz Mat Branch structure.
- Identify the hazardous materials incident levels.
- Explain response priorities.
- Explain each of the response models.
- Describe the development of an Incident Action Plan (IAP) and a Site Safety Plan (SSP).
- Describe forms and logs necessary for scene management.
- Perform the duties of an assigned function within the ICS.
- Complete emergency response plan reports.
- Develop a site safety and control plan.

Chapter 3

- Describe the physical states of matter.
- Identify the physical properties of a material.
- Define temperature and pressure.
- Explain aggressive materials.
- Explain phase changes.
- Describe the effect that mixing materials can have on physical properties.

Chapter 4

- Define atoms.
- Describe the basic arrangement of the periodic table of elements.
- Explain the four significant families of elements.
- Describe matter.
- Explain the concept of bonding.
- Explain the various types of reactions.
- Describe common families of hazardous materials.
- Identify special hazards of chemicals and weapons of mass destruction.
- Define radiation.

Chapter 5

- Explain exposure.
- Describe elements of toxicology.
- Define radiological and biological limits and values.
- Differentiate between risk and harm.
- Explain medical monitoring and exposure reporting.

Chapter 6

- Describe the job functions of a technical research specialist.
- Explain the basic principles of chemical research.
- Identify various written technical references.
- Identify various electronic technical resources.
- Describe other technical information centers and specialists.
- Determine characteristics of hazardous materials.

Chapter 7

- Describe the application of detection devices.
- Describe detection and monitoring operations.
- Identify monitoring and sampling techniques.
- Identify sensor-based instruments and other devices.
- Describe advanced hazard identification and monitoring technologies.
- Explain sample and evidence collection techniques.
- 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.

Chapter 8

- Identify various kinds of respiratory protection.
- Identify various types of protective clothing.
- Identify classifications of PPE.
- Discuss the utilization of PPE ensembles.
- Describe PPE-related stresses.
- Describe the inspection, testing, maintenance, and storage of PPE.
- 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.

Chapter 9

- Explain the process of selecting a method of decontamination.

- Describe various decontamination methods.
- Identify equipment and limitations for various types of technical decontamination.
- Compare methods of mass decontamination.
- Explain how to assess decontamination effectiveness.
- Describe implementation of decontamination.
- Identify special considerations for decontamination.
- 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.

Chapter 10

- Identify non-bulk containers.
- Identify intermediate bulk containers.
- Describe ton containers.
- Identify characteristics of highway cargo containers.
- Identify characteristics of railway tank cars.
- Describe intermodal containers.
- Explain marine tank vessels.
- Describe air freight cargo.
- Identify the construction and principles of pipelines.
- Identify fixed facility containers.
- Describe laboratories that may house hazardous materials.
- Define batch plants.
- Differentiate among radioactive materials packaging.
- Explain non-regulated and illicit container use.

Chapter 11

- Describe product control.
- Explain damage assessment and predicting behavior.
- Describe plugging and patching.
- Identify cargo tanks.
- Identify pressurized containers.
- Identify characteristics of drums.
- Explain overpacking.
- Describe specialized product control techniques.
- 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 slide-in method.
- Overpack a drum using the slip-over method.

Chapter 12

- Define demobilization.
- Explain the importance of incident termination.

• 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 slide-in method.
- Overpack a drum using the slip-over method.

• Who should attend?

- Airport Fire Officer

• Course Language.

- English

• Duration.

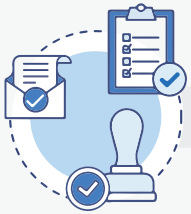
- 5 day

• Assessment and Certification.

- Passing Grade is 70% of the final exam

• 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



• Prerequisites

- Hazardous Material Operation.

Course

Fire Inspector I

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• Course Summary

- 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.

• What you will learn?

Chapter 1
- Describe the duties of an inspector.
- Describe the legal guidelines for inspections.

Chapter 2
- Identify appropriate resources for finding current and applicable codes and standards.
- Explain complaint procedures.
- Describe the role of an Inspector I in the permitting process.

Chapter 3
- Describe the various components of fire behavior.
- Describe fire development..

Chapter 4
- Identify construction types.
- Identify single-use occupancy classifications.

Chapter 5
- Identify accepted types of construction building materials and the fire risks associated with them.

Chapter 6
- Describe different types of walls found in structures and the fire hazards they present.
- Identify roof types and coverings and the fire hazards they present.
- Identify floor characteristics.
- Describe ceiling characteristics.
- Describe stair characteristics important to inspectors.
- Describe the fire risks posed by how doors operate.
- Differentiate among fire doors based on construction and operation.
- Describe different types of windows and how they operate.
- Describe how interior finishes can contribute to fire spread.
- Explain the fire and life safety aspects of building services.

Chapter 7
- Describe means of egress systems.
- Explain the way to calculate occupant oads for a single-use occupancy.

Chapter 8
- Describe types of fire lanes and fire apparatus access roads.
- Explain site access considerations for construction and demolition sites
- Identify structure access barriers.

Chapter 9

- Identify unsafe behaviors that may require code enforcement.
- Identify improper use or storage of lammable and combustible liquids.
- Recognize unsafe conditions that have hazardous fire growth potential and may require code enforcement.

Chapter 10

- Explain the application of hazardous materials regulations.
- Identify some of the applicable codes and standards that apply to hazardous materials.
- Explain the classification system used for hazardous materials.
- Describe the classification and properties of physical hazard materials.
- Explain the classification of health hazard materials.
- Describe the code requirements for the marking of hazardous materials for identification by emergency responders.
- Describe code considerations for determining the permissible amount of hazardous materials within a building.
- Explain the requirements for storage and use of nonbulk and bulk packaging.
- Describe the code requirements for testing, maintenance and operation of equipment, containers and tanks.

Chapter 11

- Identify components of public wate supply systems.
- Identify characteristics of private water supply systems.
- Explain water supply testing.
- Explain fire hydrant inspections.
- Describe how to use a pitot tube and gauge to take flow readings.
- Explain how to use flow test computations.

Chapter 12

- Describe the components and basic operation of automatic sprinkler systems.
- Explain the operation of fixed fire suppression systems.
- Describe types of standpipe and hose systems.
- Explain the components and operation of stationary fire pumps.

Chapter 13

- Describe the components and operation of fixed fire suppression systems.
- Explain how to determine the operational readiness of portable fire extinguishers.

Chapter 14

- Identify fire alarm system components.
- Explain types of alarm-signaling systems.
- Explain types of automatic alarm-initiating devices.
- Describe manual alarm-initiating devices.
- Describe service testing and inspection methods for fire detection and alarm systems.

Chapter 15

- Recognize the need for a plans review.
- Identify actions an inspector should take during a plans review.

Chapter 16

- Explain the duties of an Inspector I.
- Describe components of interpersonal communication.
- Describe the basic administrative duties of an Inspector I.
- Describe the preparation required before an inspection.
- Explain basic inspection procedures.
- Explain the role of an Inspector I in follow-up inspections.
- Identify ways an Inspector I will participate in emergency planning.
- Describe the complaint management process.

• 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

• Who should attend?

- Fire Prevention Officer
- Airport Fire Officer

• Course Language.

- English

• Duration.

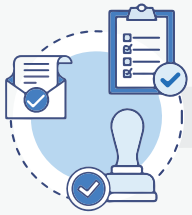
- 5 day

• 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

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Firefighter I

Course

Fire Instructor I

الأكاديمية
السعودية للطيران المدني
Saudi Academy of Civil Aviation

GACA®
الهيئة العامة للطيران المدني
General Authority of Civil Aviation

• Course Summary

- 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.

• 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.

• Who should attend?

- Fire Traning Officer
- Airport Fire Officer

• Course Language.

- English

• Duration.

- 10 Days

• 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.

Passing Grade is 70% of the final exam

• Prerequisites

- Firefighter I.

Course

Fire Officer I

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• Course Summary

- 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.

• What you will learn?

Chapter 1

- Recall the importance of the company officer.
- Select facts about the challenges a new company officer will encounter.
- Indicate the types of expectations facing a new company officer.
- Identify solutions that may need to be attained by a new company officer.
- Recall the individuals or groups to which a company officer may be responsible.
- Compare the Fire Officer Level I and Level II human resources management duties.
- Compare the Fire Officer Level I and Level II community and government relations duties.
- Compare the Fire Officer Level I and Level II administration duties.
- Compare the Fire Officer Level I and Level II inspection and investigation duties.
- Compare the Fire Officer Level I and Level II emergency service delivery duties.
- Compare the Fire Officer Level I and Level II health and safety duties.

Chapter 2

- Match leadership terms to their definitions.
- Recall information about the leadership trait theory.
- Select facts about the behavioral theory of leadership.
- Identify characteristics of various situational leadership theories.
- Choose correct responses about the principle-centered leadership theory.
- Match levels of leadership to their definitions.
- Identify characteristics of the basic leadership, situational leadership, social-change, and alpha leadership models
- Select facts about developing leadership skills.
- Select facts about leadership concepts.
- Identify various types of power.
- Identify personality attributes needed and steps to be taken to achieve command presence.

Chapter 3

- Distinguish between supervision and management.
- Recall the basic challenges common to most supervisory positions.
- Identify responsibilities required of a company officer to ensure an efficient and stable unit.

Chapter 4

- Match to their definitions terms associated with logic.

- Identify the four types of reasoning.
- Identify types of fallacies.
- Identify facts about ethical conduct.
- Select facts about an ethics program.
- Place in correct order the steps for dealing with ethical issues.
- Recall the elements of making a decision.
- Select correct responses about the steps of the decision-making process.
- Identify barriers to decision making.
- Identify the questions of the four-way test for ethical decision-making.

Chapter 5

- Select facts about the major sources of law.
- Identify the seven classifications of laws.
- Match to their definitions legal terms.
- Recall various forms of liability.
- Select facts about federal and statutory laws of importance to the company officer's duties.
- Identify national consensus standards that relate to emergency activities.

Chapter 6

- Identify the six basic elements of all forms of communication.
- Select facts about the five purposes for interpersonal communication.
- Identify correct responses about words as symbols.
- Recall information about the cultural concept of words.
- Select facts about the actions that a company officer can take to improve verbal communication skills.
- Select correct responses about the nonverbal component.
- Select facts about the actions that a company officer can take to improve nonverbal communication skills.
- Recall information about the listening process and improving listening skills.
- Apply the interpersonal communication model to an emergency situation scenario.
- Apply the interpersonal communication mode to a nonemergency situation.

Chapter 7

- Identify elements of the speech communication process.
- Distinguish between interpersonal communication and speech communication.
- Identify characteristics of effective speakers.
- Match to their definitions the three types of formal speeches.
- Select facts about the persuasive speech.
- Recall the principles used in the informative speech.
- Identify facts about various speaking opportunities available to the company officer.
- Recall information about public relations speeches.
- Place in order the steps of the speech preparation process.
- Choose correct responses about the steps of the speech preparation process.

Chapter 8

- Match to their definitions terms associated with written communication.
- Identify parts of an outline.

- Identify common paragraph transitions.
- Identify generally accepted writing guidelines.
- Select facts about writing memos and e-mail messages.
- Select correct responses about writing letters.
- Given scenarios, write a letter, memo, and e-mail relating to the fire service.
- Identify guidelines to follow when writing a press release.
- Given a scenario, write a news release ove a fire and emergency services event.
- Select facts about various types of reports.
- Write a report on a specific fire department topic.
- Select facts about executive summaries agendas, and minutes.
- Identify basic information to be included in a policy or procedure.
- Recall information about requests for proposals (RFPs) and bid specifications.

Chapter 9

- Select facts about the main objectives of the customer service concept.
- Identify various information-gathering methods.
- Identify steps to be taken in interpreting information.
- Apply the customer service concept to a citizen inquiry.
- Select facts about written policies and procedures.
- Recall information about the policy and procedures revision and monitoring process.
- Given a scenario, recommend changes to an existing policy or implement a new departmental policy.
- Identify various budget systems and types.
- Identify revenue sources.
- Select facts about the steps of budget development.
- Prepare a budget request for a specific fire service need

Chapter 10

- Identify facts about emergency scene casualties and nonemergency workplace casualties.
- Identify facts about safety initiatives and resources that focus on ensuring a safe work environment.
- Identify the importance of physical fitness and wellness
- Recall various safety policies and procedures.
- Distinguish among activities to ensure a safe work environment at the emergency scene, en route to and from the emergency scene, and at facilities.
- Select facts about information included in a safety and health program.
- Given safety scenarios, identify hazards.
- Select facts about maintaining an effective infectious disease control program.
- Recall information about conducting accident investigations.
- Complete an initial accident investigation.
- Identify facts about collecting data and completing accident report forms.
- Select facts about investigating injuries illnesses, and exposures.

Chapter 11

- Match to their definitions the organizational principles used by most fire and emergency services organizations.
- Choose correct responses about organizational structure within the fire and emergency services.
- Describe the management components of the fire and emergency services organization.
- Identify purposes of fire protection organizations.
- Identify public fire and emergency services organizations.
- Identify private fire and emergency services organizations.
- Match to their definitions various types of staffing.
- Select facts about the three types of resource allocation.

Chapter 12

- Distinguish between the two levels of fire and emergency services training.
- Recall information about the four-step method of instruction.
- Select facts about lesson plans.
- Identify various methods of training.
- Direct employees during a training evolution.

Chapter 13

- Match to their definitions types of plans.
- Recall information about company-level planning.
- Select facts about issues involving personnel assignments.
- Select facts about promotion and retention.
- Select correct responses about performance evaluations.
- Select correct responses about specific human resources issues a company officer may face.
- Respond to scenarios about human resources policies and procedures.
- Select facts about conflict management.
- Recall information about discipline as it applies to the company officer.

Chapter 14

- Identify components of the history of the labor movement in North America.
- Recall information about the negotiating process.
- Select facts about grievance procedures.

Chapter 15

- Recall information about community demographics and the diversity of a community.
- Respond to scenarios about community needs.
- Select facts about dealing with customer concerns, complaints, and inquiries.
- Respond to scenarios about concerns of citizens.
- Select facts about the public information officer (PIO) and media relations

Chapter 16

- Identify the steps in the management information system (MIS) process.
- Select facts about types of records normally maintained by a fire and emergency services organization.

- Explain why incident response data is important to the fire and emergency services organization
- Recall information about the components of the electronic storage/retrieval system.
- Distinguish between private and public records.

Chapter 17

- Select facts about preincident planning.
- Match to their definitions the NFPA® 220 types of building construction.
- Match to their definitions the International Building Code® (IBC®) types of building construction.
- Identify different types of roofs.
- Choose correct responses about the preincident survey.
- Select facts about conducting the preincident survey.
- Select facts about fire loading.
- Select facts about fire protection and structure ventilation systems
- Choose correct responses about water supply information that should be gathered during a preincident survey.
- Select correct responses about developing preincident plans.
- Apply the process of preincident planning to a facility.
- Choose correct responses about a company officer's authority to perform inspections.
- Select facts about various ordinances, codes, and standards that are used to ensure fire and life safety.
- Identify the company officer's responsibilities in the inspection process.
- Select facts about preparing for inspections.
- Select facts about conducting inspections
- Identify general inspection categories.
- Match contents-hazard classifications to their definitions.
- Select facts about hazardous materials labeling.
- Select facts about inspecting/testing fire protection systems
- Match fire detection/signaling systems to their definitions.
- Identify the three types of standpipe and hose systems.
- Identify types of fire extinguishing systems.

Chapter 18

- Recall information about interoperability.
- Select facts about various types of communications equipment.
- Identify correct radio communications procedures.
- Select facts about the five Cs of radio communication.

Chapter 19

- Recall the common characteristics of the National Incident Management System–Incident Command System (NIMS-ICS).
- Match to their definitions common terminology of the NIMS-ICS.
- Select facts about the common characteristics of the NIMS-ICS.
- Identify facts about incident priorities.
- Select facts about incident size-up.
- Identify the five steps in the size-up process as developed by Lloyd Layman.
- Choose correct facts about the various scene-control methods.
- Select true statements concerning traffic control at an emergency scene.

- Choose correct facts about crowd control and on-scene occupant services.
- Apply the NIMS-ICS model to an emergency incident plan.
- Implement an incident action plan (IAP) at an emergency scene.

Chapter 20

- Recall each of the elements of the Layman Decision-Making Model.
- Select facts about the application of size-up theory to three specific time periods.
- Recognize condition indicators that may be present at a structure fire.
- Identify facts about operational implementation.
- Define various operational modes.
- Select facts about various operational modes.
- Recall facts about apparatus placement and positioning at structural fire scenes.
- Select from a list guidelines for positioning apparatus at wildland fire scenes.
- Identify considerations for positioning apparatus at hazardous materials incidents.
- Recall facts about positioning apparatus at high-rise incidents.
- Select from a list guidelines for the placement and positioning of apparatus at technical rescue incidents.
- Identify considerations for positioning apparatus at aircraft incidents.
- Choose correct facts about positioning apparatus at medical incidents.
- Identify the incident termination activities of the Company Officer.

Chapter 21

- Select facts about scene security.
- Define chain of custody.
- Distinguish between an interview and an interrogation.
- Place in order the steps of an interview.
- Identify characteristics of an incident report.
- Identify the common causes of fires.
- Select correct responses about fire growth and development.
- Select facts about determining the point of origin for various types of fires.
- Apply the evaluation process to the fire cause and determination task.
- Identify the most common sources of contamination at fire scenes.
- Select facts about the elements of a postincident analysis and critique.
- Conduct a postincident analysis.

• 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 Changes to 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

• Who should attend?

- Airport Fire Officer

• Course Language.

- English

• Duration.

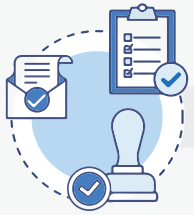
- 10 day

• 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-Incident Activities

• Assessment and Certification.

- Passing Grade is 70% of the final exam



• Prerequisites

- Fire Instructor I
- Firefighter II.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