

COURSE OVERVIEW HE1192 Certified Fire Protection Specialist (NFPA-CFPS Exam Preparation Training)

Course Title

Certified Fire Protection Specialist (NFPA-CFPS Exam Preparation Training)

Course Date/Venue

December 22-26, 2024/Meeting Plus 5, City Centre Rotana Doha, Doha, Qatar

O CEUS (40 PDHs)

Course Reference HE1192

Course Duration/Credits Five days/4.0 CEUs/40 PDHs

Course Description







This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview Certified Fire Protection Specialist. It covers the fire combustion, fire tetrahedron, fire behavior and types of fires; the principles of fire protection including fire dynamics and behavior; building construction and fire resistance; the fire hazard identification and risk assessment; the effective fire prevention programs, fire prevention training and proper documentation and record-keeping for compliance; and the fire detection systems, automatic sprinkles systems, fire suppressions systems and standpipe and hose systems.



Further, the course will also discuss the types of portable extinguishers and their applications; the smoke ventilation systems and smoke control systems; the egress system requirement, occupant load, egress capacity calculations and egress markings; the lighting standards and accessibility requirements for emergency egress; the fire safety in building occupancies, emergency evacuation and response plan; the incident command system (ICS) and smoke and fire spread control measures; and the firefighter safety and coordination.



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During this interactive course, participants will learn the risk mitigation techniques, fire protection cost-benefit analysis and fire risk management; the classification and identification of hazardous materials; the storage and handling requirements for hazardous materials; the causes and types of explosions, explosion venting and suppression techniques; the explosion-proof equipment and code requirements for explosion hazard; the wildfire risk assessment and mitigation, integrating security and fire protection systems and accessing control and fire door management; the emergency power and lighting systems, principles of fire investigation and legal and regulatory aspects of fire protection; preparing fire incident reports, maintaining accurate fire protection records and documenting for inspections and tests; and the legal requirements for incident documentation.

Course Objectives

Upon successful completion of this course, each participant will be able to:-

- Get prepared for the next CFPS exam and have enough knowledge and skills to pass such exam in order to get the Fire Protection Specialist certification from the National Fire Protection Association (NFPA)
- Discuss fire science covering combustion, fire tetrahedron, fire behavior and types of fires
- Recognize the principles of fire protection including fire dynamics and behavior
- Build construction and fire resistance as well as apply fire hazard identification and risk assessment
- Design effective fire prevention programs and fire prevention training and apply proper documentation and record-keeping for compliance
- Recognize fire detection systems, automatic sprinkler systems, fire suppressions systems and standpipe and hose systems
- Identify the types of portable extinguishers and their applications including smoke ventilation systems and smoke control systems
- Recognize egress system requirement, occupant load and egress capacity calculations, egress markings and lighting standards and accessibility requirements for emergency egress
- Implement fire safety in building occupancies, emergency evacuation and response plan
- Discuss incident command system (ICS) and apply smoke and fire spread control measures including firefighter safety and coordination
- Carryout risk mitigation techniques, fire protection cost-benefit analysis and fire risk management
- Classify and identify hazardous materials including storage and handling requirements for hazardous materials
- Recognize the causes and types of explosions, explosion venting and suppression techniques, explosion-proof equipment and code requirements for explosion hazard
- Apply wildfire risk assessment and mitigation, integrating security and fire protection systems and access control and fire door management
- Discuss emergency power and lighting systems, principles of fire investigation and legal and regulatory aspects of fire protection
- Prepare fire incident reports, maintain accurate fire protection records, document for inspections and tests and discuss legal requirements for incident documentation



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Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK**[®]). The **H-STK**[®] consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of fire protection specialist for all group of professionals including risk managers, loss control specialists, fire officers, fire marshals, fire inspectors, safety managers, fire protection consultants, designers, engineers, code enforcers, facility managers and for those who have responsibilities dealing with the application of fire safety, protection, prevention and suppression technologies.

Exam Eligibility & Structure

To be eligible to take the CFPS examination, candidates must demonstrate on the CFPS application that they meet one of the following criteria:-

- Bachelor's or Master's degree in a Fire Protection-related discipline* from an accredited college or university, including degrees in engineering fields that are applied to the practice of fire protection; plus TWO years of verifiable work experience dedicated to curtailing fire loss, both physical and financial
- Associate's degree in a Fire Protection-related discipline* from an accredited college or university, or a Bachelor's or Master's degree in any unrelated field; plus FOUR years of verifiable work experience dedicated to curtailing fire loss, both physical and financial
- High school diploma or equivalent, plus SIX years of verifiable work experience dedicated to curtailing fire loss, both physical and financial

*Examples include degrees in Fire Protection Engineering, Fire Science, Fire Protection Technology, and Fire Service Administration. Examples of engineering fields that are frequently applied to the practice of fire protection include, but are not limited to, Mechanical, Civil, Chemical, and Electrical engineering.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-ofthe-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures

- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.



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NFPA-CFPS Certificate(s)

(1) NFPA-CFPS certificates will be issued to participants who successfully passed the NFPA-CFPS exam.



(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

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Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-

BAC British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

The International Accreditors for Continuing Education and Training
(IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **4.0 CEUs** (Continuing Education Units) or **40 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Fee

US\$ 6,000 per Delegate. This rate includes H-STK[®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

<u>Exam Fee</u>

US\$ 550 per Delegate.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



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Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Dr. John Petrus, PhD, MSc, BSc, is a Senior HSE Consultant with over 30 years of onshore & offshore experience within the Oil & Gas, Refinery and Petroleum industries. His wide experience covers in the areas of HAZOP & HAZID, HAZMAT & HAZCOM Storage & Disposal, As Low as Reasonably Practicable (ALARP), Process Hazard Analysis (PHA), Process Safety Management (PSM), Hazardous Materials & Chemicals Handling, Pollution Control, Environment, Health & Safety Management, Process Risk Analysis, Effective Tool Box Talks, Construction Sites Safety, HSSE Management System, HSSE Audit & Inspection, HSEQ Procedures,

Authorized Gas Testing, Confined Space Entry & Rescue, Risk Management, Quantitative & Qualitative Risk Assessment, Working at Height, Firefighting Techniques, Fire & Gas Detection System, Fire Fighter & Fire Rescue, Fire Risk Assessment, HSE Industrial Practices, Manual Handling, Rigging Safety Rules, Machinery & Hydraulic Lifting Equipment, Warehouse Incidents & Accidents Reporting, Incident & Accident Investigation, Emergency Planning, Emergency Response & Crisis Management Operations, Waste Management Monitoring, Incident Command, Job Safety Analysis (JSA), Behavioral Based Safety (BBS). Further he is also well versed in Materials for Construction & Repair of Concrete, Concrete Structures & Building Rehabilitation, Reinforced Concrete Structures Protection, Building Construction Technology, Construction Operations & Civil Engineering Services, Building Management, Building Maintenance, Construction & Concrete Works, Construction Management, Construction Materials & Testing, Construction Safety, Predictive Maintenance in Construction, Construction & Facilities Development, Buildings & Diverse Plant Infrastructure, Planning & Monitoring the Progress & Quality of Work, Physical Planning & Operations, Rotating Machinery Principles & Applications, Rotating Equipment Selection, Operation, Maintenance, Inspection & Troubleshooting, Rotating Machine/Equipment in Industry, Control Valves & Actuators, Data Analytics for Managerial Decision Making, Business Process Analysis, Mapping & Modeling, Research Methods & Analysis, Statistical Data Needs Analysis, Oil & Gas Industry Business Environment & Competitive Intelligence Gathering & Analysis, Petroleum Economics & Risk Analysis, Certified Data Analysis.

During his career life, Dr. Petrus held significant positions and dedication as the **Executive Director**, **Senior Geoscience Advisor**, **Exploration Manager**, **Project Manager**, **Manager**, **HSE Engineer**, **Mechanical Engineer**, **Maintenance Engineer**, **Chief Geologist**, **Chief** of **Exploration**, **Chief** of **Geoscience**, **Senior Geosciences Engineer**, **Senior Explorationist**, **Senior Geologist**, **Geologist**, **Senior Geoscientist**, **Geomodeller**, **Geoscientist**, **CPR Editor**, **Resources Auditor**, **Project Leader**, **Technical Leader**, **Safety Supervisor**, **Team Leader**, **Senior HSE Consultant**, **Scientific Researcher** and **Senior Instructor/Trainer** from various international companies and universities such as the Dragon Oil Holding Plc., ENOC, MENA, ENI Group of Companies, Ocre Geoscience Services (OGS), Burren RPL, Ministry of Oil-Iraq, Eni Corporate University, Standford University, European Universities, European Research Institutes, NorskHydro Oil Company, Oil E&P Companies, just to name a few.

Dr. Petrus has a **PhD** in **Geology** and **Tectonophysics** and **Master** and **Bachelor** degrees in **Earth Sciences** from the **Utrecht University**, **The Netherlands**. Further, he is a **Certified Instructor/Trainer**, a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)**, a Secretary and Treasurer of Board of Directors of Multicultural Centre, Association Steunfonds SSH/SSR and Founding Member of Sfera Association. He has further published several scientific publications, journals, research papers and books and delivered numerous trainings, workshops, courses, seminars and conferences internationally.



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Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1:	Sunday 22 nd of December 2024
0730 – 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
	Introduction to Fire Science
0830 - 0900	Basic Concepts of Combustion & Fire • The Fire Tetrahedron & Elements of Combustion
	• Fire Behavior & Spread •Types of Fires & Classifications
	Principles of Fire Protection
0900 - 0930	Historical Overview of Fire Protection • Key Objectives of Fire Protection Systems •
	Role of Fire Protection Specialists • Fire Codes & Regulatory Compliance
0930 - 0945	Break
	Fire Dynamics & Behavior
0945 – 1100	Heat Transfer Mechanisms (Conduction, Convection, Radiation) • Fuel Load & Fire
	Growth • Flashover & Fire Stages • Smoke Production & Movement
	Building Construction & Fire Resistance
1100 - 1200	<i>Types of Construction & their Fire Resistance Properties • Fire Barriers, Partitions, &</i>
1100 - 1200	Fireproofing Materials • Structural Stability Under Fire Conditions • Impact of
	Building Design on Fire Safety
1200 – 1300	Lunch
	Fire Hazard Identification & Risk Assessment
1300 – 1530	Identifying Potential Fire Hazards •Quantifying Risk Levels • Principles of Fire Risk
	Assessment • Hazard Control Measures
1530 – 1545	Break
	Fire Prevention Programs
1545 - 1650	Designing Effective Fire Prevention Programs • Employee Fire Prevention Training •
	Importance of Maintenance & Inspection • Documentation & Record-Keeping for
	Compliance
1650 - 1700	Recap
1700	End of Day One

Day 2:	Monday 23 rd of December 2024
	Fire Detection Systems
0730 - 0830	Types of Fire Detectors (Smoke, Heat, Flame) • Principles of Fire Detection Technologies
	Detector Selection & Placement • Maintenance & Testing Requirements
	Automatic Sprinkler Systems
0830 - 0930	Types of Sprinkler Systems (Wet, Dry, Pre-Action, Deluge) • Components & Operation
	of Sprinkler Systems • Water Supply Requirements & System Design • Inspection &
	Maintenance Procedures
0930 - 0945	Break
0945 – 1200	Fire Suppression Systems
	Overview of Different Suppression Systems (Co2, Foam, Halon Alternatives) • Design
	& Installation Standards • Fire Suppression Agent Properties & Suitability • Testing &
	Maintenance for Reliability
1200 – 1300	Lunch



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1300 - 1530	Standpipe & Hose SystemsTypes of Standpipe Systems & their Uses • Hose Selection & Hose Cabinet Design •Fire Department Connection Requirements • Inspection & Testing Protocols
1530 - 1545	Break
1545 - 1615	Portable Fire Extinguishers Types of Portable Extinguishers & Their Applications • Classification & Rating of Extinguishers • Placement & Accessibility Guidelines • Maintenance, Inspection, & Testing Requirements
1615 - 1650	Smoke Control & Management SystemsPrinciples of Smoke Control • Smoke Ventilation System Design • Pressurization ofStairwells & Exits • Testing & Maintenance of Smoke Control Systems
1650 - 1700	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day Two

Day 3:	Tuesday 24 th of December 2024
	Life Safety & Egress Design
0730 - 0830	Egress System Requirements (Corridors, Exits, Stairways) • Occupant Load & Egress
0750 - 0850	Capacity Calculations • Egress Markings & Lighting Standards • Accessibility
	Requirements for Emergency Egress
	Fire Safety in Building Occupancies
0830 - 0930	Understanding Occupancy Classifications • Fire Protection Strategies by Occupancy
0000 - 0000	Type • Unique Hazards in Various Occupancies (Industrial, Healthcare, Residential)
	NFPA Standards for Specific Occupancies
0930 - 0945	Break
	Emergency Evacuation & Response Plans
0945 – 1200	Developing & Implementing Evacuation Plans • Fire Drills & Emergency Response
0943 - 1200	Exercises • Roles & Responsibilities During an Emergency • Communication Protocols
	for Emergencies
1200 – 1300	Lunch
	Incident Command System (ICS)
1300 - 1530	Overview of ICS Principles • Structure & Roles within ICS • Coordination with Local
	Fire Departments • ICS in Large-Scale Fire Incidents
1530 - 1545	Break
	Smoke & Fire Spread Control Measures
1545 - 1615	Fire Doors & Dampers • Firestopping & Compartmentation • Passive & Active Fire
	Barriers • Managing Smoke Migration in Buildings
	Firefighter Safety & Coordination
1615 - 1650	Entry & Attack Strategies • Ventilation & Hose Line Tactics • RIT (Rapid Intervention
	Teams) • Ensuring Firefighter Safety in Various Scenarios
	Recap
1650 - 1700	Using this Course Overview, the Instructor(s) will Brief Participants about the Topics
	that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day Three



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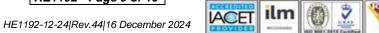


Day 4:	Wednesday 25 th of December 2024
	Fire Risk Management Strategies
0730 - 0830	Risk Mitigation Techniques • Cost-Benefit Analysis in Fire Protection • Prioritizing
	Fire Protection Investments • Managing Fire Risk in Complex Environments
	Hazardous Materials & Fire Protection
0830 - 0930	Classification & Identification of Hazardous Materials • Storage & Handling
0050 - 0550	Requirements for Hazardous Materials • Fire Suppression Considerations for
	Hazardous Areas • Special NFPA Codes for Hazardous Materials
0930 - 0945	Break
	Explosion Protection & Prevention
0945 – 1200	<i>Causes & Types of Explosions (Gas, Dust, Vapor) • Explosion Venting & Suppression</i>
0945 - 1200	Techniques • Explosion-Proof Equipment & Enclosures • Code Requirements for
	Explosion Hazards
1200 - 1300	Lunch
	Wildfire Risk Assessment & Mitigation
1300 – 1530	Understanding Wildfire Behavior & Risks • Wildland-Urban Interface Considerations
	• Fire-Resistant Landscaping & Building Design • Evacuation Planning in Wildfire-
	Prone Areas
1530 - 1545	Break
	Security & Fire Protection
1545 - 1615	Integrating Security & Fire Protection Systems •Access Control & Fire Door
	Management • Surveillance Systems in Fire Prevention • NFPA Codes for Security &
	Fire Coordination
1615 - 1650	Emergency Power & Lighting Systems
	Emergency Lighting Requirements • Backup Power System Design & Installation •
	Maintenance & Testing of Emergency Systems • Role of Emergency Power in Fire
	Safety
	Recap
1650 - 1700	Using this Course Overview, the Instructor(s) will Brief Participants about the Topics
	that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day Four

Day 5:	Thursday 26 th of December 2024
-	Principles of Fire Investigation
0730 - 0830	Fire Cause & Origin Determination • Evidence Preservation & Chain of Custody •
	Investigative Techniques & Tools • Reporting & Documentation Standards
	Legal & Regulatory Aspects of Fire Protection
0830 - 0900	NFPA Standards & Legal Implications • OSHA Fire Protection Regulations •
	Insurance & Liability in Fire Protection • Ethical Considerations in Fire Protection
0900 - 0915	Break
0915 – 1100	Incident Reporting & Documentation
	Preparing Fire Incident Reports • Maintaining Accurate Fire Protection Records •
	Documentation for Inspections & Tests • Legal Requirements for Incident
	Documentation
1100 – 1200	Lunch
1200 - 1430	Certification Exam Preparation
	Review of Key NFPA Codes & Standards • Practice Questions & Exam Strategies •
	Time Management During the Exam • Resources for Ongoing Professional
	Development
1430 - 1445	Break



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1445- 1530	Professional Roles & Responsibilities of CFPS Code of Ethics for CFPS Professionals • Maintaining Certification & Continuing Education • Working with Fire Protection Teams & Stakeholders • Advancing Career Opportunities in Fire Protection
1530 - 1615	Final Exam & Mock Scenarios Case Study Reviews & Discussions • Group Exercises on Fire Risk Assessment • Analysis of Past Fire Incidents & Lessons Learned • Final Assessment & Feedback Session
1615 - 1630	<i>Course Conclusion</i> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course</i> <i>Topics that were Covered During the Course</i>
1630 - 1645	POST-TEST
1645 – 1700	Presentation of Course Certificates
1700	End of Course

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each participant will be given a username and password to log in Haward's Portal for the MOCK Exam during the 30 days following the course completion. Each participant has only one trial for the MOCK exam within this 30-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org



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