

**COURSE OVERVIEW EE1030**  
**Certified Electrical Safety Compliance Professional**  
*(NFPA - CESCO Exam Preparation Training)*

**Course Title**

Certified Electrical Safety Compliance Professional (NFPA - CESCO Exam Preparation Training)

**Course Reference**

EE1030

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

**Course Date/Venue**



Session(s)	Dates	Venue
1	February 05-09, 2024	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
2	May 05-09, 2024	Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA
3	August 04-08, 2024	Boardroom, Warwick Hotel Doha, Doha, Qatar
4	November 03-07, 2024	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

**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 of Certified Electrical Safety Compliance Professional (NFPA - CESCO). It covers the employer's responsibilities, electrical safety program and audit requirements; the requirements for a job briefing, host employer and contractor relations; the electrical safety-related work practices; the terminology related to electrical safety; the requirements for qualified and unqualified persons related to electrical equipment and systems; the potential electrical hazards and the relationship between electrical hazards and potential injuries; the methods to control the risk associated with electrical hazards and emergency procedures for assisting victims of electrical incidents; and the requirements for establishing an electrically-safe work condition and de-energization according to employer program.



Further, this course will also discuss all the possible sources of electric supply must be identified including the requirement to visually verify isolation and established policy to apply lockout/tagout (LOTO) devices; the absence of voltage and the requirements for temporary protective grounding equipment; and the components and elements of the LOTO program and procedures; the justification for not establishing an electrically-safe work condition and the energized electrical work permit requirements; the requirements related to the use of test instruments.

During this interactive course, participants will learn the precautionary techniques for work involving electrical hazards;; the requirements for an electrical hazard risk reenergizing circuits after operation of overcurrent protective devices (OCPD); the use of other equipment and alerting techniques; and the documentation requirements for electrical safety program, host-contractor meeting, training, LOTO procedure, electrical safety audit including energized electrical work permit, equipment labeling, incident energy analysis, maintenance, tests, inspection and single line diagrams.

### **Course Objectives**

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

- Prepare for the next NFPA - CESCOP exam and have enough knowledge and skills to pass such exam in order to get the CESCOP certification
- Discuss employer's responsibilities, electrical safety program and audit requirements
- Identify requirements for a job briefing, host employer and contractor relations
- Carryout electrical safety-related work practices as well as identify and define terminology related to electrical safety
- Discuss the requirements for qualified and unqualified persons related to electrical equipment and systems
- Recognize potential electrical hazards and explain the relationship between electrical hazards and potential injuries
- Identify methods to control the risk associated with electrical hazards and emergency procedures for assisting victims of electrical incidents
- List the requirements for establishing an electrically-safe work condition and de-energization according to employer program
- Recognize that all possible sources of electric supply must be identified including the requirement to visually verify isolation where possible and established policy to apply lockout/tagout (LOTO) devices
- Verify the absence of voltage and recognize the requirements for temporary protective grounding equipment and the components and elements of the LOTO program and procedures

- Carryout precautionary techniques for work involving electrical hazards, identify justification for not establishing an electrically-safe work condition and determine energized electrical work permit requirements
- Discuss the requirements for an electrical hazard risk reenergizing circuits after operation of overcurrent protective devices (OCPD) and the requirements related to the use of test instruments
- Use other equipment and alerting techniques
- Identify documentation requirements for electrical safety program, host-contractor meeting, training, LOTO procedure, electrical safety audit including energized electrical work permit, equipment labeling, incident energy analysis, maintenance, tests, inspection and single line diagrams

### **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, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

### **Who Should Attend**

This course provides a basic overview of all significant aspects and considerations of certified electrical safety compliance professional for electrical and safety professionals who oversee electrical safety programs or who manage electricians and other personnel exposed to electrical hazards.

### **Exam Eligibility & Structure**

Exam candidates shall have the following minimum prerequisites:

A) All Candidates	
All CESC Candidates (Regardless of Job function) must meet the following minimum requirements:-	Acceptable Documentation
<ul style="list-style-type: none"> <li>• Attendance of Haward’s EE0625 Course</li> </ul>	<ul style="list-style-type: none"> <li>• Certificate or proof of attendance/completion</li> </ul>
<ul style="list-style-type: none"> <li>• Holding a high school diploma or equivalent</li> </ul>	<ul style="list-style-type: none"> <li>• No documentation required</li> </ul>

<b>B) Electricians</b>	
In addition to the minimum requirements found in Table A, all Electricians applying for entry into the CESCO program must meet ONE of the following:-	Acceptable Documentation
<ul style="list-style-type: none"> <li>Licensed electrician with 8,000 hrs (4 years) of verifiable work experience with electrical power systems</li> </ul> <p style="text-align: center;"><b>OR,</b></p> <ul style="list-style-type: none"> <li>In lieu of licensure, must show proof of electrician job role and 8,000 hrs (4 years) of verifiable work experience with electrical power systems</li> </ul>	<ul style="list-style-type: none"> <li>Proof of Licensure <b>AND,</b></li> <li>Letter from supervisor (showing number of hours worked)</li> </ul>
	<ul style="list-style-type: none"> <li>Copy of job description (signed by supervisor) <b>AND,</b></li> <li>Letter from supervisor (showing number of hours worked)</li> </ul>

<b>C) Electrical Engineers</b>	
In addition to the minimum requirements found in Table A, all Electrical Engineers applying for entry into the CESCO program must meet ONE of the following:-	Acceptable Documentation
<ul style="list-style-type: none"> <li>Associate degree in electrical engineering from an accredited college or university with 8,000 hrs (4 years) of verifiable work experience with electrical power systems (field work)</li> </ul> <p style="text-align: center;"><b>OR,</b></p> <ul style="list-style-type: none"> <li>Bachelor's degree (or higher) in electrical engineering from an accredited college or university with 4,000 hrs (2 years) of verifiable work experience with electrical power system (field work)</li> </ul> <p style="text-align: center;"><b>OR,</b></p> <ul style="list-style-type: none"> <li>Licensed Registered Professional Electrical Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Proof of degree <b>AND,</b></li> <li>Letter from supervisor (showing number of hours worked)</li> </ul>
	<ul style="list-style-type: none"> <li>Proof of degree <b>AND,</b></li> <li>Letter from supervisor (showing number of hours worked)</li> </ul>
	<ul style="list-style-type: none"> <li>Proof of licensure</li> </ul>

<b>D) Non- Electrician/Electrical Engineer (Other) Candidates</b>	
In addition to the minimum requirements found in Table A, all other candidates applying for entry into the CESCO program must meet ONE of the following:-	Acceptable Documentation



<ul style="list-style-type: none"> <li>• Certified Safety Professional (CSP) with 6,000 hrs (3 years) of verifiable work experience with electrical power systems</li> </ul> <p style="text-align: center;"><b>OR,</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree (or higher) in engineering, technology, or other related technical discipline from an accredited college or university with 6,000 hrs (3 years) of verifiable work experience with electrical power systems</li> </ul> <p style="text-align: center;"><b>OR,</b></p> <ul style="list-style-type: none"> <li>• Facilities/Plant/Factory safety professional with 20,000 hrs (10 years) of verifiable work experience with electrical power systems</li> </ul>	<ul style="list-style-type: none"> <li>• Proof of CSP <b>AND,</b></li> <li>• Letter from supervisor (showing number of hours worked)</li> </ul>
	<ul style="list-style-type: none"> <li>• Proof of degree <b>AND,</b></li> <li>• Letter from supervisor (showing number of hours worked)</li> </ul>
	<ul style="list-style-type: none"> <li>• Copy of job description (signed by supervisor) <b>AND,</b></li> <li>• Letter from supervisor (showing number of hours worked)</li> </ul>

### Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-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.

### Course Fee

Abu Dhabi	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	<b>US\$ 6,500</b> per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### Accommodation

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

### **Course Certificate(s)**

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

### **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations: -

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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 **3.0 CEUs** (Continuing Education Units) or **30 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.

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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.

**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:



**Mr. Steve Mark, PE, MSc (on-going), BSc**, is a **Senior Electrical & Telecommunications Engineer** with over **20 years** of extensive experience within the **Oil & Gas, Petrochemical and Power** industries specializing in **Certified Electrical Safety Compliance Professional, Overhead Power Line Maintenance Patrolling & Washing, Energy Transmission & Distribution, Transmission Line Structures, Insulators & Accessories, Transmission Line Construction & Maintenance, Insulated Power Cables, High Voltage Applications, Transmission Line Parameters, Sag & Tension of Conductor, Geomagnetic Disturbances, Reactive Power Compensation, Overhead Line Troubleshooting, Patrolling, Troubleshooting Safety, HV/LV Equipment, High Voltage Electrical Safety, LV & HV Electrical System, HV Equipments Inspection & Maintenance, HV Switchgear Operation & Maintenance, LV Distribution Switchgear & Equipment, Basic Electricity, Electrical & Special Hazards, Personnel Protection, Motor Controllers, Electrical Switching Practices, Emergency Planning, Safety Management, Earthing & Bonding Installation, Energized & De-Energized Work, Protection Relays, Testing & Commissioning, Lock & Tag Out, Circuit Breakers & Switchgears, Portable Cables, Transformers, Surge Arrestors, Isolators & Fuses, Capacitor Banks, Earth & Shunt Reactors, Gas Insulated Substations (GIS), HV Substation Inspection & Reporting, HV Cable Design, HV Electrical System Commissioning, HV Equipments Inspection & Maintenance, UPS & Generators, Electrical Installations Design & Construction, Electrical Mechanical Installations, GIS Substations, GE Turbine Power Plant and Steam Power Plants**. Further, he is also well-versed in **Network & System Administration, Data/Voice Networking, Network Capacity Calculations, VPN Connection Implementation, Structured Cabling Constructions, Engineering Design, Security Installations Design & Implementation, Logistics Management, IT Analysis, Business Continuity Plan Design, Disaster Recovery Simulations, Supply Chain System Design, Barcode Marking & RFID Applications**. He is currently the **Lead Electrical Engineer** of Public Power Corporation S.A wherein he is responsible for site manufacturing supervision of works and electrical maintenance support for the existing Steam Electrical Power Plant.

During his career life, Mr. Mark has gained his expertise and thorough practical experience through handling challenging positions such as being the **IT & Telecommunications Manager, IT & Organization Manager, Logistics Manager, Electrical Engineer, Safety Engineer, Public Works Contractor, IT Support Analyst, Project Supervisor, Systems & Network Administrator, Data Protection Officer, Shop Auditor and Amateur Radio Operator** for various multi-national companies and institutes.

Mr. Mark is a **Registered Professional Engineer**, has a Bachelor degree in **Electrical Engineering** from the **Technical University of Halkida, Euboea, Greece** and currently enrolled for **Master** degree in **Quality Management** from the **Hellenic Open University**. Further, he is a **Certified Instructor/Trainer, a Certified Safety Engineer** and a **Certified Data Protection Officer (DPO)**. Moreover, he is a member of Scientific Society of Technological Education of Engineers (EETEM) and has delivered numerous trainings, courses, seminars, workshops and conferences internationally.

**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**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Understand Employer's Responsibilities</b> Implement the Employer's Electrical Safety Program
0930 – 0945	Break
0945 – 1130	<b>Understand Employer's Responsibilities (cont'd)</b> Recognize Electrical Safety Program Audit Requirements
1130- 1230	<b>Understand Employer's Responsibilities (cont'd)</b> Identify Requirements for a Job Briefing
1230 - 1245	Break
1245 – 1330	<b>Understand Employer's Responsibilities (cont'd)</b> Recognize Requirements for Host Employer & Contractor Relations
1330 – 1420	<b>Understand Electrical Safety-Related Work Practices</b> Identify & Define Terminology Related to Electrical Safety
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2**

0730 – 0930	<b>Understand Electrical Safety-Related Work Practices (cont'd)</b> Identify the Requirements for Qualified & Unqualified Persons Related to Electrical Equipment & Systems
0930 – 0945	Break
0945 – 1130	<b>Understand Electrical Safety-Related Work Practices (cont'd)</b> Recognize Potential Electrical Hazards
1130 – 1230	<b>Understand Electrical Safety-Related Work Practices (cont'd)</b> Identify Emergency Procedures for Assisting Victims of Electrical Incidents
1230 -1245	Break
1245 - 1300	<b>Identify the Requirements for Establishing an Electrically-Safe Work Condition</b> Identify Requirements for De-Energization According to Employer Program
1300 – 1420	<b>Identify the Requirements for Establishing an Electrically-Safe Work Condition (cont'd)</b> Recognize that All Possible Sources of Electric Supply Must be Identified
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two

**Day 3**

0730 – 0930	<b>Identify the Requirements for Establishing an Electrically-Safe Work Condition (cont'd)</b> Recognize the Requirement to Visually Verify Isolation Where Possible • Identify the Employer's Documented & Established Policy to Apply Lockout/Tagout (LOTO) Devices
0930 – 0945	Break



0945 – 1100	<b>Identify the Requirements for Establishing an Electrically-Safe Work Condition (cont'd)</b> Identify the Steps to Verify the Absence of Voltage • Recognize the Requirements for Temporary Protective Grounding Equipment
1100 – 1230	<b>Identify the Requirements for Establishing an Electrically-Safe Work Condition (cont'd)</b> Identify the Components & Elements of the LOTO Program & Procedures
1230 - 1245	Break
1245 - 1420	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards</b> Identify Justification for not Establishing an Electrically-Safe Work Condition
1420 - 1430	<b>Recap</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

#### Day 4

0730 – 0930	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Determine Energized Electrical Work Permit Requirements
0930 – 0945	Break
0945 – 1100	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Understand the Requirements for an Electrical Hazard Risk Assessment
1100 – 1230	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Understand the Requirements for Reenergizing Circuits After Operation of Overcurrent Protective Devices (OCPD)
1230 - 1245	Break
1245 - 1420	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Understand the Requirements Related to the Use of Test Instruments
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Four

#### Day 5

0730 – 0930	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Understand the Use of Other Equipment
0930 – 0945	Break
0945 – 1100	<b>Identify Precautionary Techniques for Work Involving Electrical Hazards (cont'd)</b> Understand the Required Use of Alerting Techniques
1100 – 1230	<b>Understand Documentation Requirements</b> Electrical Safety Program • Host-Contractor Meeting
1230 - 1245	Break

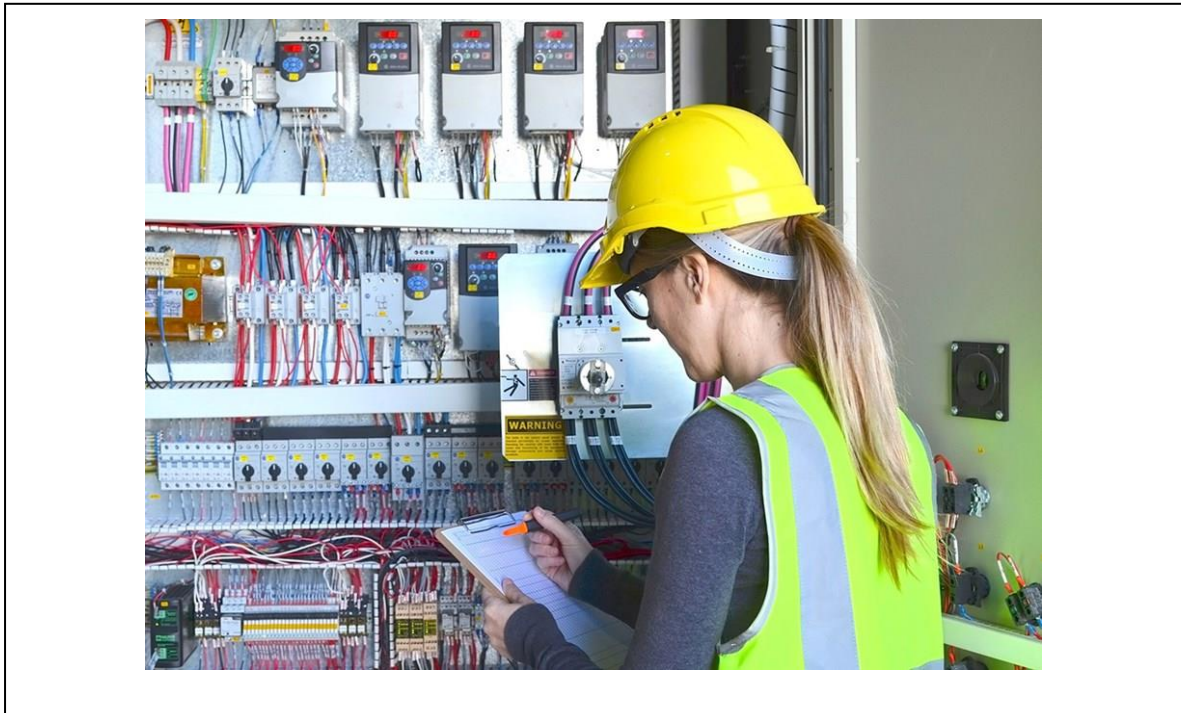
1245 - 1300	<b>Understand Documentation Requirements (cont'd)</b> Training • LOTO Procedure • Electrical Safety Audit • Energized Electrical Work Permit
1300 - 1345	<b>Understand Documentation Requirements (cont'd)</b> Equipment Labeling • Incident Energy Analysis • Maintenance, Tests, & Inspection • Single Line Diagrams
1345 - 1400	<b>Course Conclusion</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1400 - 1415	<b>POST-TEST</b>
1415 - 1430	Presentation of Course Certificates
1430	Lunch & 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 7 days following the course completion. Each participant has only one trial for the MOCK exam within this 7-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**

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