

## <u>COURSE OVERVIEW HE0171</u> <u>Certified Process Safety Professional (CPSP)</u> (CCPS Exam Preparation Training)

## Course Title

Certified Process Safety Professional (CPSP) (CCPS Exam Preparation Training)

### Course Date/Venue

Option 1: August 03-07, 2025/Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE Option 2: August 17-21, 2025/Glasshouse Meeting Room, Grand Millennium Al

Wahda Hotel, Abu Dhabi, UAE

**O** CEUs

(30 PDHs)

## Course Reference

HE0171

#### Course Duration/Credits Five days/3.0 CEUs/30 PDHs

#### Course Introduction









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This course is designed to provide participants with a detailed and up-to-date overview of Certified Process Safety Professional (CPSP) (CCPS Exam Preparation Training). It covers the four pillars and 20 elements of risk-based process safety (RBPS) and the importance of process safety; the process safety culture, leadership commitment, employee engagement and empowerment and safety-oriented culture; gathering and maintaining process safety information; and the key components of Process Safety Information (PSI).

Further, the course will also discuss the Process Hazard Analysis (PHA) fundamentals as well as HAZOP, What-If, FMEA techniques and risk management; the advanced PHA techniques, human factors in process safety and adherence to safety protocols and procedures; the Safety Instrumented Systems (SIS), potential consequences of process failures and consequence analysis in risk assessment; building and maintaining process safety competency within the organization; the management of change (MoC), emergency management and response; and the incident investigation, root cause analysis and operational readiness and pre-startup safety reviews (PSSR).



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During this interactive course, participants will learn the asset integrity and reliability, safe work practices, permit-to-work systems and contractor management; the key process safety metrics, metrics for continuous improvement and process safety audits; the management reviews, continuous improvement processes and integrating process safety into corporate governance; the stakeholder engagement and communication, sustainability and process safety; the emerging trends and technologies in process safety.

# Course Objectives

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

- Get prepared for the next CCPS-CPSP exam and have enough knowledge and skills to pass such exam in order to get the Certified Process Safety Professional (CPSP) certification from the Center for Chemical Process Safety (CCPS)
- Discuss the four pillars and 20 elements of risk-based process safety (RBPS) and the importance of process safety
- Develop a process safety culture, leadership commitment, employee engagement and empowerment and safety-oriented culture
- Gather and maintain process safety information and identify the key components of Process Safety Information (PSI)
- Discuss Process Hazard Analysis (PHA) fundamentals as well as HAZOP, What-If, FMEA techniques and risk management
- Carryout advanced PHA techniques, identify the human factors in process safety and ensure adherence to safety protocols and procedures
- Design and implement Safety Instrumented Systems (SIS), analyze potential consequences of process failures and use consequence analysis in risk assessment
- Build and maintain process safety competency within the organization and implement management of change (MoC), emergency management and response
- Apply incident investigation, root cause analysis and operational readiness and prestartup safety reviews (PSSR)
- Employ asset integrity and reliability, safe work practices, permit-to-work systems and contractor management
- Identify and track key process safety metrics, use metrics for continuous improvement and conduct process safety audits
- Conduct management reviews, implement continuous improvement processes and integrate process safety into corporate governance
- Apply stakeholder engagement and communication, sustainability and process safety as well as discuss the emerging trends and technologies in process safety



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# **Exclusive Smart Training Kit - H-STK®**



Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK**<sup>®</sup>). The **H-STK**<sup>®</sup> 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 riskbased process safety for employees from operations, maintenance and technical services.

### Exam Eligibility & Structure

Exam candidates shall have the following minimum prerequisites:-

- 5 years industrial experience with a degree (4 year / bachelor's or equivalent) from an accredited college or university in science, technology, engineering, or math (STEM), or
- 10 years experience for a degree in a non-STEM field or no degree

### Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, Stateof-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

**US\$ 5,500** per Delegate + **VAT**. This rate includes H-STK<sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day

### <u>Exam Fee</u>

US\$ 535 per Delegate + VAT.



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# CCPS-CPSP Certificate(s)

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CCPS-CPSP certificates will be issued to participants who have successfully passed the CCPS-CPSP examination.

An ACHE Technology Alliance Center for Chemical Process Safety	
CERTIFIED PROCESS SAFETY	PROFESSIONAL
The Center for Chemical Process Safety® of AIChi	E® hereby confirms that
Oscar Mauricio Baraja	as Pinzon
is a Certified Process Safety Professional, having demonstr chemical process safety. This certification remains in effect the holder meets the ongoing professional development a	from the date granted as long as
Granted this April 19, 2023	Certificate number 2023045320104948
Saket Kadi Executive Director & CEO, CCPS	Darlen Lebust Darlee Schuster CEO & Executive Director, AIChE

(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**

Haward's certificates are accredited by the following international accreditation organizations: -



British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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 **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.

### 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:



Mr. Peter Christian is an International Expert in Safety, Health, Environmental and Quality with over 30 years of practical and industrial experience in NEBOSH International General Certificate in Occupational Health & Safety, Lifting & Rigging Equipment HAZOP, HAZWOPER, HAZMAT, HAZCOM, PHA (Process Hazard Analysis), FMEA, HAZID, ISO 14001, OHSAS 18001, ISO 9001, Process Safety Management (PSM), Safety, Health, Environmental & Quality Management (SHEQ), Behavioral Safety Management, Industrial Hygiene, Human Factors

**Engineering**, **Risk Assessment**, Fire Fighting, Rope Rescue Operations, Emergency Response within process industries. He is currently the **President** of **NKWE** and spearheads the companies major projects and business ventures, where he specializes in the areas of **SHEQ** solutions, **ISO**, **Quality Control** and **OSHA systems**. Previously, he has had much on–hand experience in the initiation and management of projects (technical as well organizational development) including involvement in **design of process plants**; **the commissioning & decommissioning** of process plants; the **operational and financial responsibility** for large process operations; **risk management**; **operational and maintenance management**, **crisis and emergency management**, **accident investigation**, **risk assessment**, **hazard identification** and **emergency preparedness & response** (oil spillage and gas explosions).

Much earlier in his career, Mr. Christian was a **HAZOP Team Leader** for numerous **HAZOP** studies and he has further managed the **Health**, **Safety & Environmental** and **Quality** requirements of a large process company. This included responsibilities as an auditor for compliance against **SHEQ standards**, **ISO standards** and the **Fatal Risk Control Protocols**. He then facilitated the development and implementation of the above standards as a group and at site level as part of the SHEQ council. Moreover, he established, trained and led a Rope rescue team and a high level emergency care clinic and ambulance service for many years. He still abseils recreationally and leads adventure groups during abseiling activities and serves as a rescue team member for mountain and water emergencies.

During his career life, Mr. Christian has gained his practical and field experience through his various significant positions as the **Plant Manager**, **Project Metallurgist**, **Metallurgist**, **HSE Team Leader**, **SHEC Superintendent**, **Mentor**, Instructor/Trainer, Acting **Technical Manager**, **Process Plant Superintendent**, Acting **Project Leader**, Acting **Plant Superintendent**, Appointed **Health & Safety & Environmental Superintendent**, Production Technician, Acting **Senior Shiftsman**, Foreman and Learner – Official Extraction Metallurgy from various companies such as the NKWE Consulting, SAMANCOR, Middleburg Mine Services (Pty) Ltd., Koomfontein Mines, Emelo Mine Services, Gencor Group and South African Defence Force.

Mr. Christian has a Postgraduate Studies in Advanced Executive Programme and a National Higher Diploma (NHD) & a National Diploma in Extraction Metallurgy. He is also a Certified/Registered Tutor in NEBOSH International General Certificate, Certified Auditor in OHSAS 18001, ISO 14001 & ISO 9001, a Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer by the Institute of Leadership & Management (ILM), a Six Sigma Black Belt Coach and holds a Certificate in Facilitate Learning Using a Variety of Given Methodologies NQF Level 5 (EDTP-SETA) as a Certified Facilitator. He has further delivered innumerable courses, trainings, workshops and conferences globally.



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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
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Day I	
0730 – 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
	Overview of RBPS Framework
0830 - 0930	Introduction to the Four Pillars and 20 Elements of RBPS • Importance of Process
	Safety and Historical Context
0930 - 0945	Break
	Developing a Process Safety Culture
0945 – 1030	<i>Leadership Commitment</i> • <i>Employee Engagement and Empowerment</i> • <i>Building</i>
	and Maintaining a Safety-Oriented Culture
	Understanding Process Safety Information (PSI)
10303 - 1130	Gathering and Maintaining Process Safety Information • Key Components of PSI
	(e.g., Material Safety Data Sheets, Process Flow Diagrams)
1120 1220	Process Hazard Analysis (PHA) Fundamentals
1130 – 1230	<i>Overview of PHA Methodologies</i> • HAZOP, What-If, and FMEA Techniques
1230 - 1245	Break
1245 – 1330	Risk Management
	Identifying and Assessing Risks • Implementing Risk Management Strategies
1330 - 1420	Case Studies & Group Discussions
	<i>Review of Major Industrial Incidents</i> • <i>Lessons Learned and Best Practices</i>
1420 - 1430	Recap
1430	Lunch & End of Day One

# Day 2

Day Z	
0730 - 0830	Advanced PHA Techniques
	In-Depth Look at PHA Methodologies   Conducting Effective PHAs
	Human Factors in Process Safety
0830 - 0930	Understanding Human Error and its Impact on Safety • Strategies to Mitigate
	Human Error
0930 - 0945	Break
	Operational Discipline & Compliance
0945 - 1100	Ensuring Adherence to Safety Protocols and Procedures • Role of Operational
	Discipline in Preventing Incidents
	Safety Instrumented Systems (SIS)
1100 – 1230	Overview of SIS and their Role in Process Safety • Design and Implementation of
	SIS
1230 – 1245	Break
	Consequence Analysis
1245 - 1330	Techniques for Analyzing Potential Consequences of Process Failures • Use of
	Consequence Analysis in Risk Assessment
1330 - 1420	Group Exercises & PHA Workshops
	Practical Application of PHA Techniques • Group Exercises to Reinforce Learning
1420 – 1430	Recap
1430	Lunch & End of Day Two



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#### Day 3

0730 – 0830	Process Safety Competency
	Building and Maintaining Process Safety Competency within the Organization
0830 - 0930	Management of Change (MOC)
	Principles of Effective MOC • Implementation and Tracking of Changes
0930 - 0945	Break
0945 - 1100	Emergency Management & Response
	Developing and Implementing Emergency Response Plans • Coordination with
	Local Emergency Services
	Incident Investigation & Root Cause Analysis
1100 – 1230	Techniques for Investigating Process Safety Incidents • Conducting Root Cause
	Analysis
1230 - 1245	Break
1245 - 1420	<b>Operational Readiness &amp; Pre-Startup Safety Reviews (PSSR)</b>
	Ensuring Systems are Safe to Start • PSSR Methodologies and Best Practices
1420 - 1430	Recap
1430	Lunch & End of Day Three
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Day 4	
	Asset Integrity & Reliability
0730 – 0830	Ensuring the Integrity and Reliability of Process Equipment • Maintenance
	Strategies and Programs
	Safe Work Practices
0830 - 0930	Development and Implementation of Safe Work Practices • Permit-to-Work Systems
	and Contractor Management
0930 - 0945	Break
	Process Safety Metrics & Performance Indicators
0945 – 1100	Identifying and Tracking Key Process Safety Metrics • Using Metrics for
	Continuous Improvement
	Auditing & Compliance
1100 – 1230	Conducting Process Safety Audits • Ensuring Compliance with Regulations and
	Standards
1230 - 1245	Break
	Management Review & Continuous Improvement
1245 – 1330	Conducting Management Reviews • Implementing Continuous Improvement
	Processes
	Group Discussions & Continuous Improvement Workshops
1330 – 1420	Sharing Best Practices and Lessons Learned • Developing Action Plans for
	Continuous Improvement
1420 - 1430	Recap
1430	Lunch & End of Day Four

## Day 5

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0730 - 0930	<i>Integrating Process Safety into Corporate Governance</i> <i>Role of Process Safety in Corporate Governance</i> • <i>Aligning Process Safety with</i> <i>Business Objectives</i>
0930 - 0945	Break
0945 - 1100	Stakeholder Engagement & CommunicationEngaging with Stakeholders on Process Safety Issues• Effective CommunicationStrategies
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	Sustainability & Process Safety
1100 – 1230	Role of Process Safety in Sustainability Initiatives • Environmental and Social
	Aspects of Process Safety
1230 - 1245	Break
	Future Trends in Process Safety
1245 – 1345	Emerging Trends and Technologies in Process Safety • Preparing for Future
	Challenges
1345 – 1400	Course Conclusion
1400 - 1415	POST-TEST
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 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.

#### **Exam Periods**

- March 10-17, 2025
- July 14-21, 2025
- November 10-17, 2025
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The deadline to sign up is at noon Eastern Time on Friday, prior to the exam. Applications take up to one month to review, after receipt of references. Please plan accordingly.

#### **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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