

## COURSE OVERVIEW TM0205

### DevOps for Industrial Operations Professionals

#### Course Title

DevOps for Industrial Operations Professionals

#### Course Reference

TM0205

#### Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

#### Course Date/Venue



Session(s)	Date	Venue
1	April 20-24, 2025	Crowne Meeting Room, Crowne Plaza Al Khobar, KSA
2	June 22-26, 2025	Safir Meeting Room, Divan Istanbul, Turkey
3	September 08-12, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	November 02-06, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE

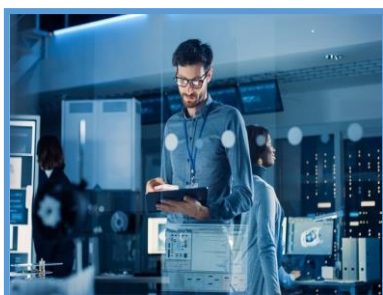
#### Course Description



***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 DevOps for Industrial Operations Professionals. It covers the principles, culture, practices and importance of DevOps in industrial operations; the agile methodologies and how they apply to industrial settings; the version control systems and their application in industrial environments; the build automation and testing and deployment automation; and the release management and integrating testing and quality assurance into the CI/CD pipeline.



During this interactive course, participants will learn the infrastructure as code (IaC) concepts and benefits, IaC tools and the benefits and applications of the automation in industrial operations; the configuration management, automation of routine operational tasks and monitoring and logging in industrial systems; the monitoring and logging tools, effective monitoring strategies and security considerations in DevOps for industrial environments; the compliance and regulatory requirements and planning and implementing a DevOps transformation; overcoming challenges in DevOps adoption; and the key performance indicators (KPIs) and future trends in DevOps for industrial operations.

## Course Objectives

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

- Apply and gain an in-depth knowledge on DevOps for industrial operations professionals
- Discuss the principles, culture, practices and importance of DevOps in industrial operations
- Explain agile methodologies and how they apply to industrial settings including the version control systems and their application in industrial environments
- Carryout build automation and testing, deployment automation, release management and integrating testing and quality assurance into the CI/CD pipeline
- Discuss infrastructure as code (IaC) concepts and benefits, IaC tools and the benefits and applications of the automation in industrial operations
- Apply configuration management, automation of routine operational tasks and monitoring and logging in industrial systems
- Identify monitoring and logging tools, implement effective monitoring strategies and discuss security considerations in DevOps for industrial environments
- Recognize compliance and regulatory requirements as well as plan and implement a DevOps transformation
- Overcome challenges in DevOps adoption, apply key performance indicators (KPIs) and discuss future trends in DevOps for industrial operations

## 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 DevOps for industrial operations professionals for operations managers and supervisors, maintenance engineers and technicians, process engineers, automation engineers, IT professionals supporting industrial environments, quality assurance personnel, production managers, and those who are involved in the digital transformation of industrial operations.

## Course Fee


Al Khobar Dubai 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.
Istanbul	<b>US\$ 6,000</b> per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### **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: -

-  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 **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.



### 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. Manuel Dalas**, PEng, MSc, BSc, PMI-PMP, is a **Senior Project & Management Consultant** with over **25 years** of industrial experience in **Oil, Gas, Refinery, Petrochemical, Power and Nuclear** industries. His wide expertise includes **Project Management, Project Management Professional (PMP), Program Management Professional (PgMP), Project Risk Management Concepts, Project Management Framework, Integration Management, Scope Management, Time Management, Human Resource Management, Communications Management, Balanced Scorecard, Change Management, Contract Management, Procurement & Purchasing Management, Strategic & Planning Management, Root Cause Analysis, Quality Assurance Management, Claim & Counterclaim Management, Budgeting, Project Scheduling and Risk Management**. Further, he is also well-versed in **Petroleum Economics, Maintenance Planning & Scheduling, Maintenance & Reliability Management, Process Piping, Vibration Monitoring, Safety Relief Valve, Hydraulic, Heat Exchanger, Process Plant Start-Up, Commissioning & Troubleshooting, Process Plant Performance & Efficiency, Process Plant Optimization, Revamping & Debottlenecking, Hydrogen Sulfide and Flare Systems**. Currently, he is the **Technical Consultant** of the **Association of Local Authorities of Greater Thessaloniki** where he is in charge of the mechanical engineering services for piping, pressure vessels fabrications and ironwork.

During his career life, Mr. Dalas has gained his practical and field experience through his various significant positions and dedication as the **Technical Manager, Project Engineer, Safety Engineer, Deputy Officer, Instructor, Construction Manager, Construction Engineer, Consultant Engineer, Water Network Systems Engineer, Maintenance Engineer and Mechanical Engineer** and **CAESAR II Application Consultant** for numerous multi-billion companies including the **Biological Recycling Unit** and the **Department of Supplies of Greece, Alpha Bank Group, EMKE S.A, ASTE LLC** and **Polytechnic College of Evosmos**.

Mr. Dalas has a **Master's degree in Energy System** from the **International Hellenic University, School of Science & Technology** and a **Bachelor's degree in Mechanical Engineering** from the **Mechanical Engineering Technical University of Greece** along with a **Diploma in Management & Production Engineering** from the **Technical University of Crete**. Further, he is a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management (ILM)**, a **Certified Project Manager Professional (PMI-PMP)**, a **Certified Instructor/Trainer**, a **Certified Energy Auditor for Buildings, Heating & Climate Systems**, a **Member of the Hellenic Valuation Institute** and the **Association of Greek Valuers** and a **Licensed Expert Valuer Consultant** of the **Ministry of Development and Competitiveness**. He has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.



### 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.

### Accommodation

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

### 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	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0900	<b><i>Foundations of DevOps &amp; Industrial Context</i></b>
0900 – 0930	<b><i>Course Introduction &amp; Objectives</i></b>
0900 – 0930	<b><i>Introduction to DevOps: Principles, Culture &amp; Practices</i></b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b><i>The Importance of DevOps in Industrial Operations: Challenges &amp; Opportunities</i></b>
1030 – 1130	<b><i>Understanding Industry 4.0 &amp; its Relation to DevOps</i></b>
1130 – 1230	<b><i>Agile Methodologies Overview &amp; How they Apply to Industrial Settings</i></b>
1230 – 1245	<i>Break</i>
1245 – 1345	<b><i>Case Studies: Successful DevOps Implementations in Industrial Sectors</i></b>
1345 – 1420	<b><i>Discussion: Identifying DevOps Opportunities in Your Organization</i></b>
1420 – 1430	<b><i>Recap</i></b>
1430	<i>Lunch &amp; End of Day One</i>

#### **Day 2**

0730 – 0800	<b><i>Continuous Integration &amp; Continuous Delivery (CI/CD)</i></b>
0800 – 0830	<b><i>Introduction to CI/CD Pipelines</i></b>
0830 – 0930	<b><i>Version Control Systems (e.g., Git) &amp; their Application in Industrial Environments</i></b>
0930 – 0945	<i>Break</i>
0945 – 1100	<b><i>Continuous Integration: Build Automation &amp; Testing</i></b>
1100 – 1230	<b><i>Continuous Delivery: Deployment Automation &amp; Release Management</i></b>



1230 – 1245	Break
1245 – 1345	<b>Hands-on Lab: Setting Up a Basic CI/CD Pipeline</b>
1345 – 1420	<b>Integrating Testing &amp; Quality Assurance into the CI/CD Pipeline</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two

### Day 3

0730 – 0800	<b>Infrastructure as Code (IaC) &amp; Automation</b>
0800 – 0830	<b>Introduction to Infrastructure as Code (IaC) Concepts &amp; Benefits</b>
0830 – 0930	<b>Overview of IaC Tools (e.g., Terraform)</b>
0930 – 0945	Break
0945 – 1100	<b>Automation in Industrial Operations: Benefits &amp; Applications</b>
1100 – 1230	<b>Hands-on Lab: Implementing IaC for Industrial Infrastructure</b>
1230 – 1245	Break
1245 – 1345	<b>Configuration Management: Ensuring Consistency &amp; Reliability</b>
1345 – 1420	<b>Automation of Routine Operational Tasks</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

### Day 4

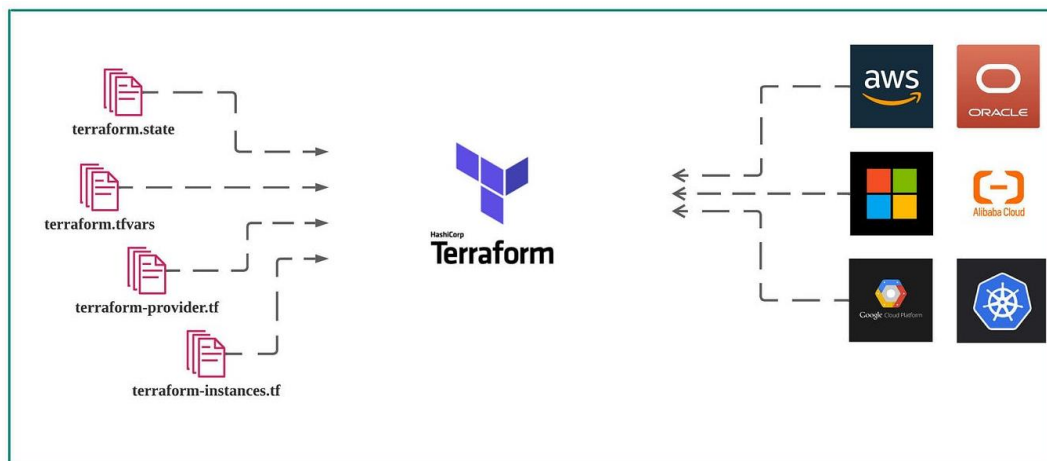
0730 – 0800	<b>Monitoring, Logging &amp; Security</b>
0800 – 0830	<b>Importance of Monitoring &amp; Logging in Industrial Systems</b>
0830 – 0930	<b>Overview of Monitoring &amp; Logging Tools</b>
0930 – 0945	Break
0945 – 1100	<b>Implementing Effective Monitoring Strategies</b>
1100 – 1230	<b>Security Considerations in DevOps for Industrial Environments (DevSecOps)</b>
1230 – 1245	Break
1245 – 1345	<b>Compliance &amp; Regulatory Requirements</b>
1345 – 1420	<b>Hands-on Lab: Setting Up Monitoring &amp; Logging Systems</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

### Day 5

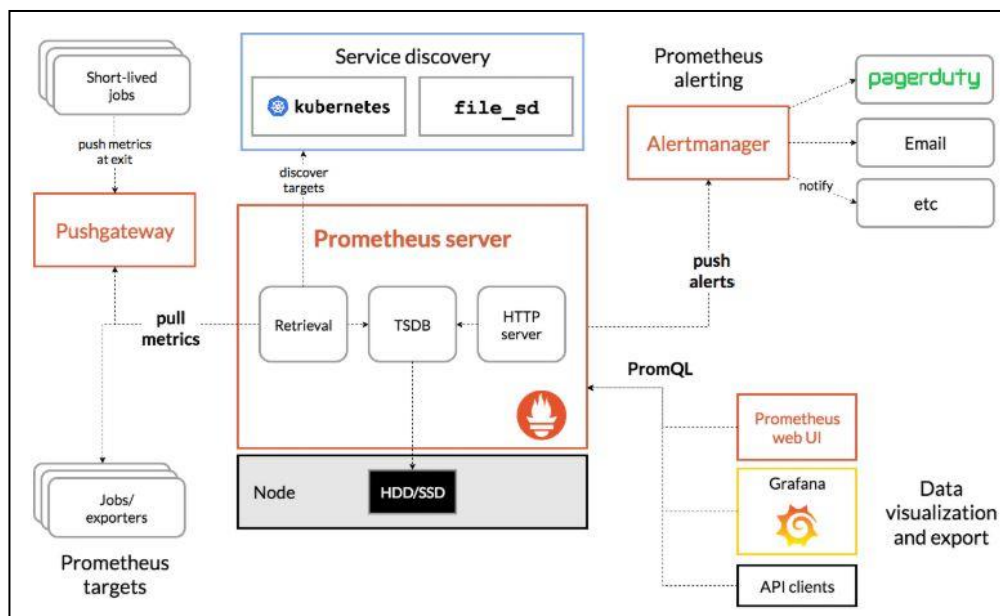
0730 – 0800	<b>Implementation &amp; Future Trends</b>
0800 – 0830	<b>Planning &amp; Implementing a DevOps Transformation</b>
0830 – 0930	<b>Overcoming Challenges in DevOps Adoption</b>
0930 – 0945	Break
0945 – 1100	<b>Measuring DevOps Success: Key Performance Indicators (KPIs)</b>
1100 – 1230	<b>Future Trends in DevOps for Industrial Operations (e.g., Edge Computing, AI)</b>
1230 – 1245	Break
1245 – 1345	<b>Group Project: Developing a DevOps Implementation Plan for a Specific Industrial Scenario</b>
1345 – 1400	<b>Course Conclusion</b>
1400 – 1415	<b>POST-TEST</b>
1415 – 1430	<b>Presentation of Course Certificates</b>
1430	Lunch & End of Course

### Simulator (Hands-on Practical Sessions)

Practical session will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the simulator “Terraform” and “Prometheus”.



Terraform



Prometheus

### Course Coordinator

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