

COURSE OVERVIEW RE0050

Turnaround Best Practices - Planning, Scheduling and Management of Shutdowns

Course Title

Turnaround Best Practices - Planning, Scheduling and Management of Shutdowns

Course Reference

RE0050

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Date/Venue



Session(s)	Date	Venue
1	January 27-31, 2025	Meeting Plus 9, City Centre Rotana, Doha, Qatar
2	May 25-29, 2025	
3	October 19-23, 2025	
4	December 21-25, 2025	

Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Turnaround Best Practices - Planning, Scheduling and Management of Shutdowns. It covers the types of turnarounds, turnaround phases and the differences between project management and turnaround management; the turnaround planning framework and identifying and assessing risks; developing a risk mitigation plan and tools for monitoring risks during execution; the scope identification, scope validation, strategies for avoiding scope creep and managing competing priorities in scope planning; and the resource planning and allocation and work breakdown structure (WBS) development.

Further, the course will also discuss the key components of an effective schedule; the critical path method (CPM) and Gantt charts for turnaround visualization; the tools and methods for accurate cost estimation, benchmarking for realistic estimates and managing estimate uncertainties; the contracting and procurement strategies and key performance indicators (KPIs) for planning; the detailed scheduling techniques, budgeting and cost control and safety management during turnarounds; and establishing QA/QC standards, inspection and testing protocols and managing non-conformance issues.

During this interactive course, participants will learn the management of change during execution; evaluating the impact of changes on scope and schedule and avoiding decision paralysis during execution; the real-time monitoring and reporting, asset handover and commissioning procedures and documentation; conducting a post-mortem analysis, evaluating turnaround success against KPIs and developing a turnaround improvement plan; collecting, storing and analyzing turnaround data; generating comprehensive turnaround reports and utilizing data for future planning; and the financial reconciliation, long-term sustainability post-turnaround and advanced tools and technologies for turnarounds.

Course Objectives

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

- Apply and gain an in-depth knowledge on turnaround best practices - planning, scheduling and management of shutdowns
- Identify the types of turnarounds, turnaround phases and the differences between project management and turnaround management
- Discuss turnaround planning framework, integrate organizational strategy and identify key stakeholders and roles
- Identify and assess risks, develop a risk mitigation plan and apply tools for monitoring risks during execution
- Apply scope identification, scope validation, strategies for avoiding scope creep and managing competing priorities in scope planning
- Carryout resource planning and allocation and work breakdown structure (WBS) development
- Identify the key components of an effective schedule and apply critical path method (CPM) and Gantt charts for turnaround visualization
- Apply tools and methods for accurate cost estimation, benchmarking for realistic estimates and strategies for managing estimate uncertainties
- Employ contracting and procurement strategies, communication and stakeholder engagement and key performance indicators (KPIs) for planning
- Apply detailed scheduling techniques, budgeting and cost control and safety management during turnarounds
- Establish QA/QC standards, inspect and test protocols and manage non-conformance issues
- Manage change during execution, evaluate the impact of changes on scope and schedule and avoid decision paralysis during execution
- Apply real-time monitoring and reporting, asset handover and commissioning procedures and documentation
- Conduct a post-mortem analysis, evaluate turnaround success against KPIs and develop a turnaround improvement plan
- Collect, store and analyze turnaround data, generate comprehensive turnaround reports and utilize data for future planning
- Apply financial reconciliation, long-term sustainability post-turnaround and advanced tools and technologies for turnarounds

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 turnaround best practices - planning, scheduling and management of shutdowns for maintenance managers and supervisors, shutdown and turnaround planners and coordinators, project managers and engineers, operations and production managers, health, safety, and environmental (HSE) professionals, inspectors and quality assurance specialists and other technical staff.

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 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.

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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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.

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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.

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. Den Bazley, PE, BSc, is a Senior Mechanical Maintenance Engineer with over 25 years of industrial experience in Oil, Gas, Refinery, Petrochemical, Power and Utilities industries. His wide expertise includes Process Plant Shutdown, Turnaround & Troubleshooting, Condition Based Monitoring, Piping System, Process Equipment, Mechanical Integrity, Maintenance Management, Reliability Management, Reliability Centred Maintenance (RCM), Total Plant Maintenance (TPM) and Reliability-Availability-Maintainability (RAM), Engineering Drawings, Codes & Standards, P&ID Reading, Interpretation & Developing. His experience covers Design, Construction and Maintenance of Storage Tank, Hydraulic Control Valves, rotating and static equipment including Safety Relief Valves, Boilers, Pressure Vessels, Tanks, Heat Exchangers, Bearings, Compressors, Pumps, Pipelines, Motors, Turbines, Gears, Lubrication Technology and Mechanical Seals. Further, he has experience in Waste Water Treatment, Water Treatment, Welding, NDT, Vehicle Fleet and Budgeting & Cost Control. He is well-versed in CMMS and various International Standards including ISO 14001.

During his career life, Mr. Bazley has gained his practical and field experience through his various significant positions and dedication as the **Engineering Manager, Maintenance Manager, Construction Manager, Project Engineer, Mechanical Engineer, Mechanical Services Superintendent, Quality Coordinator and Planning Manager** for numerous international companies like **ESSO, FFS Refinery, Dorbyl Heavy Engineering (VECOR), Vandenbergh Foods (Unilever), Engen Petroleum, Royle Trust and Pepsi-Cola.**

Mr. Bazley is a **Registered Professional Engineer** and has a **Bachelor** degree in **Mechanical Engineering**. Further, he is a **Certified Engineer** (Government Certificate of Competency GCC Mechanical Pretoria), a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management (ILM)**, an active member of the **Institute of Mechanical Engineers (IMechE)** and has delivered numerous trainings, courses, seminars and workshops internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop 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	PRE-TEST
0830 – 0930	Introduction to Turnarounds & Shutdowns Definition and Importance of Turnarounds • Types of Turnarounds (Emergency, Planned, Unplanned) • Key Challenges in Turnaround Execution • Impact on Business Operations and Finances
0930 – 0945	Break

0945 – 1030	Turnaround Lifecycle & Phases <i>Overview of Turnaround Phases: Preparation, Execution and Closure • Key Milestones in Each Phase • Differences Between Project Management and Turnaround Management • Case Studies of Successful Turnarounds</i>
1030 – 1130	Turnaround Planning Framework <i>Establishing Turnaround Objectives • Scope Definition and Management • Integration with Organizational Strategy • Identifying Key Stakeholders and Roles</i>
1130 – 1215	Risk Management in Turnarounds <i>Identifying and Assessing Risks • Developing a Risk Mitigation Plan • Contingency Planning for High-Risk Activities • Tools for Monitoring Risks during Execution</i>
1215 – 1230	Break
1230 – 1330	Scope Definition & Optimization <i>Techniques for Scope Identification • Tools for Scope Validation (e.g., Pareto Analysis, Root Cause Analysis) • Strategies for Avoiding Scope Creep • Managing Competing Priorities in Scope Planning</i>
1330 – 1420	Resource Planning & Allocation <i>Identifying Resource Requirements (Labor, Materials, Equipment) • Estimating Resource Costs and Availability • Balancing Internal versus External Resources • Strategies for Dealing with Resource Constraints</i>
1420 – 1430	Recap <i>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</i>
1430	Lunch & End of Day One

Day 2

0730 – 0830	Work Breakdown Structure (WBS) Development <i>Purpose of WBS in Turnarounds • Techniques for Creating a Comprehensive WBS • Integrating WBS into Project Schedules • Benefits of WBS for Cost and Time Tracking</i>
0830 – 0930	Scheduling Fundamentals <i>Key Components of an Effective Schedule • Critical Path Method (CPM) and its Application • Gantt Charts for Turnaround Visualization • Common Scheduling Pitfalls and How to Avoid Them</i>
0930 – 0945	Break
0945 – 1100	Estimating Techniques for Turnarounds <i>Types of Estimates (Top-Down versus Bottom-up) • Tools and Methods for Accurate Cost Estimation • Benchmarking for Realistic Estimates • Strategies for Managing Estimate Uncertainties</i>
1100 – 1215	Contracting & Procurement Strategies <i>Types of Contracts Used in Turnarounds • Selecting the Right Contractors • Procurement Timelines and Integration with Planning • Managing Vendor Relationships Effectively</i>
1215 – 1230	Break
1230 – 1330	Communication & Stakeholder Engagement <i>Developing a Turnaround Communication Plan • Tools for Effective Communication (Dashboards, Reports) • Managing Stakeholder Expectations • Conflict Resolution Strategies</i>



1330 – 1420	Key Performance Indicators (KPIs) for Planning <i>Identifying Critical Planning KPIs • Setting Measurable Objectives • Monitoring Planning Performance • Using KPIs for Continuous Improvement</i>
1420 – 1430	Recap <i>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</i>
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0830	Detailed Scheduling Techniques <i>Developing Activity Networks • Resource Leveling and Allocation Strategies • Handling Interdependencies in Activities • Tools for Dynamic Scheduling</i>
0830 – 0930	Budgeting & Cost Control <i>Creating a Turnaround Budget • Techniques for Cost Tracking • Managing Budget Overruns • Post-Turnaround Cost Reconciliation</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Safety Management During Turnarounds <i>Developing a Comprehensive Safety Plan • Conducting Hazard Assessments • Safety Training and Certifications • Emergency Response Planning</i>
1100 – 1215	Quality Assurance & Quality Control (QA/QC) <i>Establishing QA/QC Standards • Inspection and Testing Protocols • Managing Non-Conformance Issues • Role of QA/QC during Execution</i>
1215 – 1230	<i>Break</i>
1230 – 1330	Managing Change During Execution <i>Change Management Processes • Evaluating the Impact of Changes on Scope and Schedule • Communicating Changes to Stakeholders • Avoiding Decision Paralysis During Execution</i>
1330 – 1420	Real-Time Monitoring & Reporting <i>Tools for Live Progress Tracking • Dashboards for Decision-Making • Reporting Structures and Frequency • Escalation Protocols for Critical Issues</i>
1420 – 1430	Recap <i>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</i>
1430	<i>Lunch & End of Day Three</i>

Day 4

0730 – 0830	Handover & Commissioning <i>Preparing for Asset Handover • Commissioning Procedures and Documentation • Ensuring Operational Readiness • Lessons Learned from the Handover Process</i>
0830 – 0930	Post-Turnaround Review <i>Conducting a Post-Mortem Analysis • Evaluating Turnaround Success Against KPIs • Documenting Challenges and Successes • Developing a Turnaround Improvement Plan</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Data Management & Reporting <i>Collecting and Storing Turnaround Data • Analyzing Data for Insights • Generating Comprehensive Turnaround Reports • Utilizing Data for Future Planning</i>





1100 – 1215	Lessons Learned & Continuous Improvement <i>Importance of Lessons Learned Sessions • Capturing Insights from Stakeholders • Developing a Lessons-Learned Repository • Integrating Lessons into Future Plans</i>
1215 – 1230	<i>Break</i>
1230 – 1330	Financial Reconciliation <i>Finalizing Turnaround Costs • Identifying Variances and Their Causes • Reporting Financial Performance to Management • Strategies for Cost Optimization in Future Turnarounds</i>
1330 – 1420	Long-Term Sustainability Post-Turnaround <i>Embedding Best Practices into Operations • Aligning Turnaround Outcomes with Business Goals • Training and Knowledge Transfer to Teams • Building Organizational Resilience for Future Turnarounds</i>
1420 – 1430	Recap <i>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</i>
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 – 0830	Review of Real-Life Turnaround Case Studies <i>Analysis of Successful Turnarounds • Learning from Failed Turnarounds • Key Takeaways and Actionable Insights • Participant-Led Discussions</i>
0830 – 0930	Practical Exercises in Planning & Scheduling <i>Developing a Turnaround Plan from Scratch • Creating a WBS and Project Schedule • Budgeting and Resource Allocation Exercises • Identifying Risks and Mitigation Strategies</i>
0930 – 0945	<i>Break</i>
0945 – 1215	Simulation of Turnaround Scenarios <i>Real-Time Problem-Solving Exercises • Handling Scope Changes and Emergencies • Team-Based Role-Playing Activities • Performance Evaluation and Feedback</i>
1215 – 1230	<i>Break</i>
1230 – 1345	Advanced Tools & Technologies for Turnarounds <i>Overview of Software Tools (Primavera, MS Project) • Integrating AI and Machine Learning in Turnarounds • Predictive Maintenance Technologies • Utilizing Digital Twins for Planning and Execution</i>
1345 – 1400	Course Conclusion <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1400 – 1415	POST-TEST
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>



Simulator (Hands-on Practical Sessions)

Practical sessions 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 “MS Project” and “Mindview Software”.



Course Coordinator

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