COURSE OVERVIEW HE1974
Crane & Rigging Risk Management

Course Title
Crane & Rigging Risk Management

Course Date/Venue
Session 1: April 20-24, 2025/Business Meeting, Crowne Plaza Al Khobar, Al Khobar, KSA
Session 2: November 23-27, 2025/Business Meeting, Crowne Plaza Al Khobar, Al Khobar, KSA

Course Reference
HE1974

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

Course Description

This practical and highly-interactive course includes practical sessions and demonstration where participants carryout lifting and rigging operations. Theory learnt in the class will be applied using a mobile crane and assorted rigging through hands-on practical sessions.

This course is designed to provide participants with a detailed and up-to-date overview of Crane & Rigging Risk Management. It covers the fundamentals of crane operations, types of rigging equipment and factors influencing rigging safety; the common hazards in crane and rigging operations and risk management, risk assessment process, risk control strategies and regulatory requirements and compliance; the standards and regulations for crane and rigging safety including the roles and responsibilities of crane operators, rigging personnel and signalers, safety officers and supervisors; and the hazard identification techniques in crane operations, risk assessment process and job hazard analysis (JHA) for crane and rigging tasks.

Further, the course will also discuss the site-specific hazard analysis, dynamic risk assessment during operations and documentation and reporting of risks; eliminating hazards through task planning; the safe load handling techniques and rigging equipment inspection and maintenance; the crane stability and load path planning; the clear communication among crew; and the hand signals and the use of radios and other communication devices effectively.

During this interactive course, participants will learn the emergency action plan, proper evacuation and rescue procedures and advanced risk control measures; the load testing and stability checks, preventive maintenance and common maintenance tasks for crane components; the human error in crane operations, fatigue and distraction and safe behavior among operators; the internal and external audits, and preparing for regulatory inspections; using audits to identify and correct hazards and documenting inspection outcomes; the accident prevention strategies, continuous improvement in crane and rigging safety and technology and innovation in risk management; developing training and competency, assessing operator skills and safety knowledge and implementing refresher training programs; building a proactive risk management culture and involving all team members in safety initiatives; reinforcing positive behaviors and accountability; and recognizing and rewarding safety compliance.

Course Objectives

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

- Apply and gain an in-depth knowledge on crane and rigging risk management
- Discuss the fundamentals of crane operations, types of rigging equipment and factors influencing rigging safety
- Identify the common hazards in crane and rigging operations and apply risk management, risk assessment process, risk control strategies and regulatory requirements and compliance
- Discuss the standards and regulations for crane and rigging safety including the roles and responsibilities of crane operators, rigging personnel and signalers, safety officers and supervisors
- Carryout hazard identification techniques in crane operations, risk assessment process and job hazard analysis (JHA) for crane and rigging tasks
- Employ site-specific hazard analysis, dynamic risk assessment during operations and documentation and reporting of risks
- Eliminate hazards through task planning as well as apply safe load handling techniques and rigging equipment inspection and maintenance
- Carryout crane stability and load path planning, clear communication among crew, hand signals and the use of radios and other communication devices effectively
- Develop an emergency action plan, apply proper evacuation and rescue procedures and implement advanced risk control measures
- Employ load testing and stability checks, preventive maintenance and common maintenance tasks for crane components
- Recognize human error in crane operations, address fatigue and distraction and encourage safe behavior among operators
- Conduct internal and external audits, prepare for regulatory inspections, use audits to identify and correct hazards and document inspection outcomes

- Carryout accident prevention strategies, continuous improvement in crane and rigging safety and technology and innovation in risk management
- Develop training and competency, assess operator skills and safety knowledge and implement refresher training programs
- Build a proactive risk management culture, involve all team members in safety initiatives, reinforce positive behaviors and accountability and recognize and reward safety compliance

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 crane and rigging risk management for crane operators, rigging specialists, construction managers & site supervisors, safety managers and coordinators, engineers, project managers, health, safety, and environment (HSE) professionals 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.

Course Fee

US$ 7,000 per Delegate + **VAT**. 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: -

- 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.

- 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. Raymond Tegman is a **Senior HSE Consultant** with extensive experience within the **Oil & Gas**, **Petrochemical** and **Refinery** industries. His broad expertise widely covers in the areas of **Rigging** Safety Rules, Machinery & Hydraulic **Lifting Equipment**, Handling **Hazardous Chemicals**, Spill Containment, **Fire** Protection, **Fire** Precautions, **Incidents & Accidents** Reporting, **HSEQ** Audits & Inspection, **HSEQ** Procedures, **Environmental** Awareness, **Waste** Management Monitoring, **Emergency Planning**, **Emergency** Management, **Working at Heights**, **Root Cause Analysis**, **HSE** Rules & Regulations, Process Safety Management (**PSM**), Process Hazard Analysis (**PHA**), Techniques, **HAZOP**, **HSE** Risk, **Pre-Start-up Safety** Reviews, **HSE Risk** Identification, Assessments & Audit, **HSE Risk** Assessment & Management Concepts, **HSE Management** Policy & Standards, **HSSE Emergency Response & Crisis Management** Operations, **Confined Space Entry**, **Quantitative Risk Assessment** (**QRA**), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, **Hazard & Risk** Assessment, Task Risk Assessment (**TRA**), **Incident Command**, **Accident & Incident Investigation**, **Emergency Response Procedures**, Job Safety Analysis (**JSA**), Behavioural Based Safety (**BBS**), **Fall Protection**, **Work Permit & First Aid**, Lock-out/Tag-out (**LOTO**), **Emergency Response**, **Construction** Supervision, **Scaffolding** Inspection, **HAZCHEM**, Manual Material Handling, **Road Traffic** Supervision, ISO 9001 and OHSAS 18001.

During his career life, Mr. Tegman has gained his practical and field experience throu his various significant positions and dedication as the **Operations Manager**, **Safety Maintenance Manager**, **Safety Manager**, **Road/Traffic Supervis Assessor/Moderator**, **SHE Practitioner**, **Senior Instructor/ Trainer**, **Technic Trainer**, **Safety Consultant**, **Safety Advisor**, **Safety Officer** and **Liaison Officer** fr Zero Harm, SHRA Training & Services (Health & Safety), Road Crete, Balwin Prope Development, DEME International, Gladstone Australia, Godavari Gas Pipeline and Ne Castle NCIG.

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	***PRE-TEST***
0830 – 0930	***Fundamentals of Crane Operations*** *Types of Cranes Used in Different Industries • Basic Crane Mechanics & Operational Principles • Key Crane Components & their Functions • Safety Roles & Responsibilities in Crane Operations*
0930 – 0945	*Break*
0945 – 1045	***Understanding Rigging Basics*** *Types of Rigging Equipment (Slings, Shackles, Hooks) • Material Handling Principles in Rigging • Factors Influencing Rigging Safety • Key Rigging Terminologies*
1045 – 1145	***Common Hazards in Crane & Rigging Operations*** *Identifying Potential Crane Hazards (Overloading, Tipping) • Rigging-Related Hazards (Slippage, Breaking Load) • Environmental Hazards (Weather, Uneven Ground) • Human Factors & their Impact on Safety*
1145 – 1230	***Basics of Risk Management in Crane & Rigging*** *Definition & Importance of Risk Management • Overview of Risk Assessment Process • Risk Control Strategies for Crane & Rigging Safety • Regulatory Requirements & Compliance*
1230 – 1245	*Break*
1245 – 1330	***Standards & Regulations for Crane & Rigging Safety*** *Key Standards (OSHA, ANSI, ASME) Related to Cranes • Understanding Safety Guidelines & Legal Requirements • Importance of Compliance in Crane Operations • Role of Inspections in Meeting Standards*
1330 – 1420	***Roles & Responsibilities in Crane & Rigging Safety*** *Responsibilities of Crane Operators • Roles of Rigging Personnel & Signalers • Safety Officer & Supervisor Roles • Accountability in Maintaining Safe Operations*
1420 – 1430	***Recap*** *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 One*

Day 2

0730 – 0830	***Hazard Identification Techniques in Crane Operations*** *Conducting Pre-Operation Checks • Spotting Crane-Specific Hazards (Overloading, Obstructions) • Identifying Environmental & Site Hazards • Importance of Hazard Awareness*
0830 – 0930	***Risk Assessment Fundamentals*** *Steps in a Risk Assessment Process • Determining Likelihood & Severity • Documenting & Communicating Risk Levels • Revising Assessments for Changing Conditions*

0930 – 0945	*Break*
0945 – 1100	***Job Hazard Analysis (JHA) for Crane & Rigging Tasks*** *Breaking Down Tasks to Identify Risks • Evaluating Each Step for Potential Hazards • Assigning Risk Levels to Specific Tasks • Utilizing JHA Results for Safety Planning*
1100 – 1230S	***Site-Specific Hazard Analysis*** *Understanding Site Layout & Conditions • Identifying Unique Hazards at Different Sites • Adapting Equipment & Procedures for Site-Specific Risks • Documenting & Reviewing Site-Specific Assessments*
1230 – 1245	*Break*
1245 – 1330	***Dynamic Risk Assessment During Operations*** *Real-Time Risk Assessment Techniques • Monitoring Environmental Changes • Adjusting Operations Based on Immediate Risks • Role of Communication in Dynamic Assessment*
1330 – 1420	***Documentation & Reporting of Risks*** *Recording Risk Assessment Findings • Reporting Unsafe Conditions & Near-Misses • Using Data for Future Safety Improvements • Ensuring Accessible Documentation for All Team Members*
1420 – 1430	***Recap*** *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 Two*

Day 3

0730 – 0830	***Hierarchy of Controls in Crane & Rigging Safety*** *Elimination of Hazards through Task Planning • Engineering Controls in Crane Operations • Administrative Controls for Safe Practices • Role of PPE in Crane & Rigging Operations*
0830 – 0930	***Safe Load Handling Techniques*** *Calculating Load Weight & Balance • Ensuring Proper Load Distribution • Selecting the Right Rigging Equipment • Avoiding Overloading & its Consequences*
0930 – 0945	*Break*
0945 – 1100	***Rigging Equipment Inspection & Maintenance*** *Daily & Periodic Inspection Requirements • Identifying Wear & Tear in Rigging Components • Proper Maintenance Procedures for Rigging Gear • Documenting Inspection & Maintenance Activities*
1100 – 1230	***Crane Stability & Load Path Planning*** *Ensuring Crane Stability on Different Surfaces • Planning a Safe Load Path • Avoiding Obstacles & Obstructions • Managing Risk of Tipping or Collapse*
1230 – 1245	*Break*
1245 – 1330	***Communication & Signaling in Crane Operations*** *Importance of Clear Communication Among Crew • Hand Signals & their Meanings • Role of Spotters & Signal Persons • Using Radios & Other Communication Devices Effectively*

1330 – 1420	***Emergency Response Preparedness*** *Developing an Emergency Action Plan• Responding to Equipment Failure • Evacuation & Rescue Procedures • Training Personnel on Emergency Protocols*
1420 – 1430	***Recap*** *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 – 0830	***Implementing Advanced Risk Control Measures*** *Identifying High-Risk Tasks & Applying Strict Controls • Enhanced Monitoring Techniques • Reducing Exposure to High-Risk Activities • Importance of Leadership in Advanced Risk Management*
0830 – 0930	***Load Testing & Stability Checks*** *Importance of Load Testing in Safety Assurance • Conducting Stability Checks • Recognizing Signs of Instability in Cranes • Frequency & Timing for Load Testing*
0930 – 0945	*Break*
0945 – 1100	***Preventive Maintenance for Cranes & Rigging Equipment*** *Scheduled Maintenance Procedures • Importance of Preventive Maintenance in Safety • Common Maintenance Tasks for Crane Components • Documenting Maintenance Activities*
1100 – 1230S	***Behavioral Safety & Human Factors*** *Recognizing Human Error in Crane Operations • Training & Competence Requirements • Addressing Fatigue & Distraction • Encouraging Safe Behavior Among Operators*
1230 – 1245	*Break*
1245 – 1330	***Safety Audits & Inspections*** *Conducting Internal & External Audits • Preparing for Regulatory Inspections • Using Audits to Identify & Correct Hazards • Documenting Inspection Outcomes*
1330 – 1420	***Accident Prevention Strategies*** *Root Cause Analysis for Accident Prevention • Implementing Lessons Learned from Past Incidents • Encouraging Proactive Hazard Reporting • Building a Culture of Safety*
1420 – 1430	***Recap*** *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 Four*

Day 5

0730 – 0830	***Continuous Improvement in Crane & Rigging Safety*** *Importance of Continuous Improvement in Risk Management • Techniques for Monitoring Safety Performance • Analyzing Data Trends to Identify Areas of Improvement • Setting Measurable Safety Improvement Goals*
0830 – 0930	***Technology & Innovation in Risk Management*** *New tools for Risk Assessment in Crane Operations • Sensors & Monitoring Equipment for Real-Time Feedback • Advantages of Technology in Improving Safety*

0930 – 0945	*Break*
0945 – 1100	***Training & Competency Development*** *Importance of Continuous Training for Crane Operators •Developing Competency through Hands-on Practice • Assessing Operator Skills & Safety Knowledge • Implementing Refresher Training Programs*
1100 – 1215	***Learning from Incidents: Case Studies*** *Reviewing Past Crane Accidents & Incidents • Analyzing Root Causes & Failures • Applying Lessons Learned to Current Practices • Encouraging Open Discussion on Incident Prevention*
1215 – 1230	*Break*
1230 – 1310	***Creating a Risk Management Culture*** *Building a Proactive Risk Management Culture • Involving All Team Members in Safety Initiatives • Reinforcing Positive Behaviors & Accountability • Recognizing & Rewarding Safety Compliance*
1310 - 1345	***Course Review & Action Planning*** *Recapping Key Concepts from the Course • Identifying Immediate Actions for Workshop Improvement • Developing a Personal Action Plan for Risk Management*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

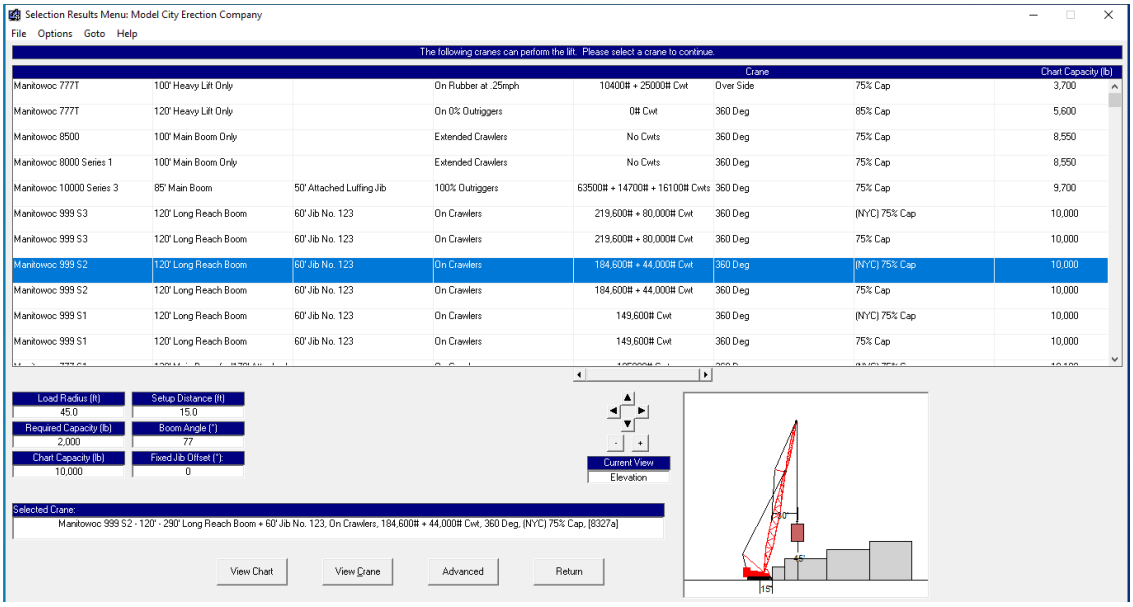
Practical Sessions/Site Visit

Site visit will be organized during the course for delegates to practice the theory learnt:-




Simulators (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 one of our state-of-the-art simulators “Compu-Crane” Software.



Compu-Crane Simulator

Course Coordinator

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