



COURSE TITLE

SAFE RIGGING PLANNING & TECHNIQUES



BUILDING COMPETENCE, INSPIRING CONFIDENCE

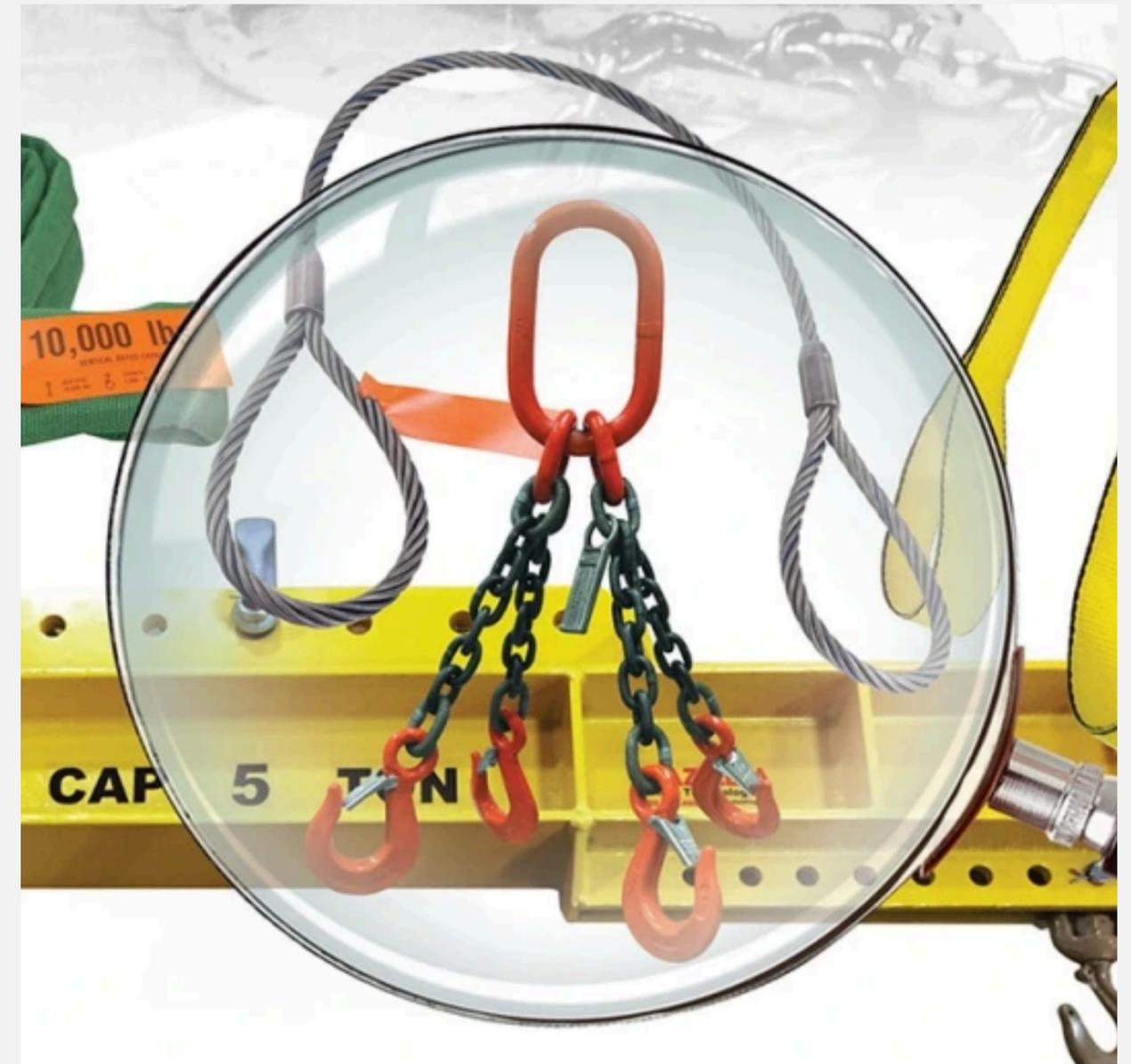
Course Objectives

By the end of this course, participants will be able to:

- Understand rigging hazards and control measures
- Plan lifting and rigging operations safely
- Select appropriate rigging equipment
- Apply correct rigging techniques for different loads
- Comply with applicable safety standards and best practices

Target Audience

- Engineers, Supervisors, Safety Officers, Riggers, Maintenance & Construction Personnel



Course Outline

Introduction to Safe Rigging

- Importance of rigging safety in lifting operations
- Roles and responsibilities (Rigger, Supervisor, Engineer, Crane Operator)
- Common rigging accidents and lessons learned
- Applicable standards & guidelines (OSHA / ASME / ISO – overview)

Rigging Planning Fundamentals (60 min)

- What is a rigging plan and why it matters
- Types of lifts:
 - Routine lifts
 - Non-routine / critical lifts
- Key elements of a rigging plan:
 - Load details (weight, COG, shape)
 - Lift method and sequence
 - Equipment selection
 - Risk assessment & controls
- Permit-to-lift system

Course Outline

Load Characteristics & Calculations (60 min)

- Understanding load weight and center of gravity
- Load stability and balance
- Sling angles and their effect on load forces
- Basic load and sling tension calculations
- Impact of dynamic loads and shock loading

Rigging Equipment – Selection & Inspection

- Slings:
 - Wire rope slings
 - Chain slings
 - Synthetic slings
- Shackles, hooks, eyebolts, turnbuckles
- Rated capacities and color coding
- Inspection criteria and rejection limits
- Storage and handling of rigging gear

Course Outline

Safe Rigging Techniques

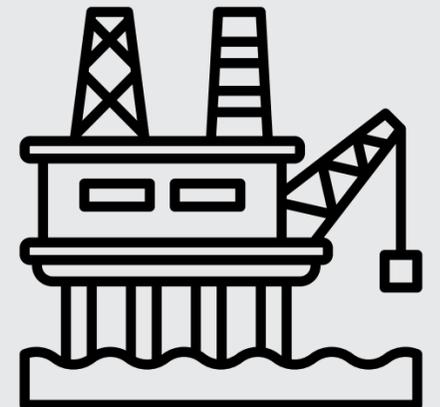
- Common hitch types:
 - Vertical hitch
 - Choker hitch
 - Basket hitch
- Multiple-leg sling configurations
- Lifting irregular and awkward loads
- Use of spreader beams and lifting beams
- Tag lines – correct use and positioning

Hazards, Controls & Best Practices

- Common rigging hazards:
 - Overloading
 - Poor communication
 - Pinch points & struck-by hazards
- Hand signals and communication methods
- Environmental considerations (wind, visibility, ground conditions)
- Do's & Don'ts of safe rigging

Case Studies & Practical Discussion

- Review of real rigging incidents
- Group discussion on planning a safe lift
- Identifying errors in sample rigging setups



Instructor



Mr. Maqbool Ahmed Soomro

Maqbool Ahmed Soomro is a highly experienced maintenance and lifting professional with over 46 years of hands-on experience in fertilizer plants, gas compression facilities, and heavy industrial environments. He specializes in crane operations, heavy lifting, rigging engineering, and maintenance of mobile and stationary equipment.

He has extensive expertise in the inspection, operation, and maintenance of mobile and overhead cranes, earthmoving machinery, and heavy-duty vehicles, with proven capability in rigging and safely executing lifts up to 300 tons during plant erections, turnarounds, and shutdowns.

Mr. Ahmed has played a key role in the erection and heavy lifting of three major Urea plants—Pak-Saudi Fertilizer, Pak-China Fertilizer, and FFC-II—and has contributed to numerous large-scale shutdowns and turnaround projects.

An accomplished corporate trainer, he has delivered professional courses on Rigging Techniques, Crane Operations, Crane Safety, and Tool Safety to leading organizations in Pakistan and the Middle East, including FFC, OMV Pakistan, SNGPL, GPIC Bahrain, Al-Khor Fertilizer, and Unilever (Fatima Fertilizer).

He is an IMS Trained Auditor, certified in Mobile & Overhead Crane Inspection by Haward Technology Middle East (Dubai), and holds a Diploma in Zeigler Firefighting Systems. He has spent most of his career in senior engineering and maintenance roles with Fauji Fertilizer Company and Fatima Fertilizer Limited.

Logistics

Duration

1 day

Location

Client site or Lahore

Training Instructors

Mr. Maqbool Ahmed Soomro

Get in Touch

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