



## INVEST IN THE FUTURE INVEST IN TRAINING



#### Approved By



أرامكو السعودية soudi aramco



المؤسسة العامة للتدريب التقني والمهني Technical and Vocational Training Corporation

Accredited By











# **Program Overview**

The Apprenticeship Program is designed to provide training to high school graduates to prepare them for entry-level jobs. The program provides participants with academic and job skills training to ensure that they have the skills necessary to be successful in their future jobs











# **Designed For**

College & High school graduates

# Requirements

- To be sponsored by an employer.
- Minimum high school average of 75%.
- Minimum QIYAS General Aptitude Test score of 65.
- Not exceed the age of 24 years.

# **Program Objective**

- Develop basic knowledge and practical skills required to meet minimal competency standards needed by the oil & gas, petrochemical and related energy industries.
- 2 Provide meaningful instruction that motivates apprentices and satisfies stakeholders and clients' needs.
- Provide appropriate feedback about apprentices' performance to the sponsoring companies concerned.
- 4 Graduate skilled & competent Saudis with fully developed round characters who would be direct job holders, armed with safety awareness, discipline, values and the desired work ethics.

# **Program Accreditation**









# **Training Methodology**

In line with German teaching methodology these technical qualifications focuses on the development of knowledge and practical skills needed for working in the oil and gas industry and will prepare the candidate to enter on the job training

# Sponsoring Company Responsibilities:

- Identify the company Training Needs
- Pay the Training Fees
- Pay the trainees monthly stipend
- provide the medical care, as per the company's policy
- Register the Trainees in GOSI

# **NITI Responsibilities**

- Attract candidates and organize the Interviews.
- Provide a competent teachers and trainers
- Provide the trainees with the required uniform and personal protecting equipment (PPE)
- Provide the trainees with the required training material and tools
- Provide the company with periodical report about the trainees performance
- Provide the company with the monthly timesheet

# **Certificate:**

NITI will issue a diploma certificate recognized by TUV Rheinland for the trainees who completed all the training requirements

## **HRDF Support**

- During the training period, HRDF shall contribute 75% of the training costs for a period not exceeding 24 months and not exceeding SR 3,000 per month for the employee. The employer shall bear the remaining costs.
- HRDF contributes to bear the proportion of the trainee monthly stipend during the training period by 50% not exceeding 1000 riyals per month





# Electrical

#### Overview

The Electrical foundation course aims to help trainee electrical technicians operating to work safely and comply with the appropriate standards. It is designed to provide the underpinning theoretical and practical knowledge for new entrants to industry. The course offers an effective platform to equip participants with the skills and knowledge necessary to enter the world of work.

## **Course Outline**

- Electrical Principles and Basic Skills
- Performing Bench Work
- Installing and Maintaining Lighting Systems
- Maintaining Battery Systems
- Maintaining Power Distribution Systems
- Install, Test and Troubleshoot Motors
- Maintaining Motor Operated Valves
- Electrical Control and Plant Systems



# **Mechanical**

### Overview

The qualification is aimed at new entrants to the industry seeking work as a mechanical technician. It has been designed to deliver a high level of occupational skills and provide a platform from which to progress into employment. This vocational route is a vital step towards becoming a competent mechanical technician..

## **Course Outline**

- Measuring imperial and Metric
- Performing Technical Sketching And Drawing
- Using Layout And Hand Tools And Performing Benchwork
- Using Power Tools
- Measuring Precision Tools
- Operating A Centre Lathe
- Assembling A Project
- Using Rigging and Lifting Equipment
- Manufacturing, Replacing Gaskets & Replacing Packing and Seals

- Performing Maintenance on Shafts, Keys and Couplings
- Maintaining Bearings and Lubrications Systems
- Maintaining Valves
- Maintaining Transmission
  Systems
- Maintaining Pumps and Aligning Motors
- Overhauling Reciprocating Compressors

Course Duration 24







# **HVAC**

### **Overview**

The qualification is aimed at new entrants to the industry seeking work as a HVAC technician. It has been designed to deliver a high level of occupational skills and provide a platform from which to progress into employment. This vocational route is a vital step towards becoming a competent HVAC technician.

### **Course Outline**

- Measurement and Drawings
- Electrical Principles
- Bench Work
- HVAC System Principles
- HVAC Equipment
- HVAC Maintenance
- HVAC Troubleshooting



# Operation

### Overview

The basic operator course provides the first phase of jobs skills training for new Saudi Aramco personnel who are targeted to be employed as Oil/Gas operators.

The course is designed to teach the fundamental skills and concepts prerequisite to task based, plant-specific training which is covered in subsequent phases of the operators training pattern

## **Course Outline**

- Oil and Gas Operations
- Plant safety
- Hydrocarbons and Process Variables
- Oil and Gas Processing and Distribution Equipment
- Process Drawings
- Process Control Simulation

Months

Course

Duration

Course Duration

Months

-



# Instrumentation

#### Overview

The foundation instrumentation qualification is aimed at new starters to industry. Candidates will develop their skills and understanding to work as a process control systems technician. A broad range of topics combine technical knowledge and understanding of control and instrumentation systems together with their practical application.

## **Course Outline**

- Oil & Gas Production
- Performing Bench work
- Describe the operation of plant
  equipment
- Electrical Fundamentals
- Electromagnetic Fundamentals
- Electromagnetic Fundamentals
- Troubleshoot Combinational Logic Circuits
- Digital Signal Processing Fundamentals
- Microcontrollers Fundamentals
- Describe the operation of a Basic control loop

- Troubleshoot & Repair a Pneumatic Control Loop
- Troubleshoot & Repair a Electronic Control Loop
- Maintain a Combustible Gas Detector
- Test & Repair Rotating Equipment Field Devices
- Troubleshoot & Repair Alarm & Shutdown Devices
- Analyze Plant Process Control systems



Course

Duration

Months

# Telecommunication

### Overview

The qualification is aimed at new entrants to the industry seeking work as a Telecommunication technician. It has been designed to deliver a high level of occupational skills and provide a platform from which to progress into employment. This vocational route is a vital step towards becoming a competent Telecommunication technician.

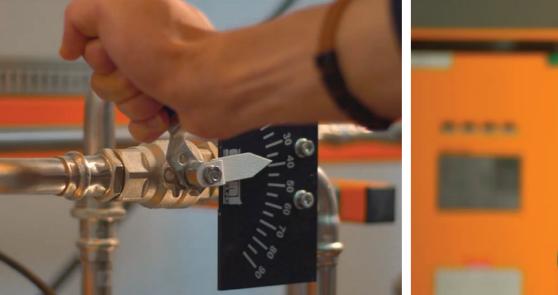
## **Course Outline**

- Telecommunications Analogue Electronics
- Telecommunications Digital Electronics
- Telecommunications Electronic System
- Analogue Telecommunication
- Digital Telecommunication
- Optical Communication

Course Duration



















# Metal

### Overview

The qualification is aimed at new entrants to the industrial sector seeking employment in the specialist domain of welding, metal fabrication or thermal cutting.

The program is predominantly practically applied, providing the candidate with the knowledge and skills serving as a foundation for progression into on the job training.

### **Course Outline**

- Measuring in Imperial and Metric
- Performing Technical Sketching and Drawing
- Using layout and Hand Tools and Performing Bench Work
- Shop and Plant Skills
- Perform Rigging Operations
- Interpret Fabrication Drawings

- Perform Oxyacetylene Operations
- Maintain Piping Systems
- Performing Pipe Bending
- Fabricate Welded Pipe Spools
- Fabricate Socket Weld Spools
- Fabricate Threaded Pipe Spools
- Fabricate Non- Metallic Pipe
- Maintain Heat Exchanger



# Welding

### **Overview**

The qualification is aimed at new entrants to the industry seeking work as a Welder. It has been designed to deliver a high level of occupational skills and provide a platform from which to progress into employment. This vocational route is a vital step towards becoming a competent Welder.

## **Course Outline**

- Measuring in Imperial and Metric
- Performing Technical Sketching and Drawing
- Using layout and Hand Tools and Performing Bench Work
- Shop and Plant Skills
- Perform Rigging Operations
- Interpret Pipe and Welding Joints
- Perform Oxyacetylene Operations

- Introduction to Arc Welding
- Fillet Welds
- Groove Welds
- Fabricate Welded Pipe Spools
- Introduction to Gas Tungsten Arc Welding

Course Duration



Months







# Safety

### **Overview**

The qualification is aimed at new entrants to the industry seeking work as a Safety officer. It has been designed to deliver a high level of occupational skills and provide a platform from which to progress into employment. This vocational route is a vital step towards becoming a competent Safety officer.

## **Course Outline**

- Introduction to Health and Safety
- Health and Safety Policies and Procedures
- Health and Safety Organization
- Health and Safety Planning
- Health and Safety, Audit and Review
- Transport Safety
- Manual Handling and Work Equipment

- Workplace Hazards and Risk Control
- Chemical Safety
- Electrical Safety
- Fire Safety
- Physical safety
- Health and Safety Practical Applications



# Heavy Equipment

#### **Overview**

The Foundation Heavy Equipment qualification is designed for new entrants into industry seeking employment as a heavy equipment operator.

The program of learning applies German favored teaching methodology through the application of practical skills. Candidates will develop their knowledge and understanding of skills in the inspection, basic maintenance, transportation and operation of a range of specialist heavy equipment. These skills will provide an effective platform for candidates to progress into the workplace.

## **Course Outline**

- Basic Skills
- Health & Safety Environment, Documentation
- Rigging and Lifting
- Crane Maintenance and Hydraulics
- Crane Functions
- Pre-Start Checks

- Crane Start
- Up and Idling
- Crane Operation
- Lift Dynamics
- Advanced Lifting
- Additional Attachments Crane Limitations

Course Duration

#### Months







# **Truck Driving**

#### **Overview**

This program targets the young Saudi's those are looking for truck driving as a profession for the following skills:

- Professionally driving the head truck
- Connect & Disconnect the truck and trailer in the right way
- Maneuvering the truck with trailer in professional way
- Securing his load
- Maintain the truck & trailer through the right regular checks
- Familiar with all related regulations and laws

### **Course Outline**

- Before you Drive
- Drivers Health & Safety
- Trucks/Trailers Components
- Before driving Skills
- Driving Techniques and Maneuvering (Head)
- Coupling Uncoupling







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