INSPIRING TECHNICAL EXCELLENCE
A new world-class training facility for Oman

Takatuf Petrofac Oman (TPO) is a new joint venture founded by Takatuf, the Human Capital solutions provider, and Petrofac, a world leading oilfield service provider with a 35-year track record in the development of training and competence programmes and facilities.

TPO will bring together this international track record and local capability within a new purpose-built centre located in Muscat at the heart of the Oman oil and gas industry. TPO is under construction and due to open before the end of 2017.

It is my pleasure to introduce you to Takatuf Petrofac Oman – TPO.

TPO is a new and exciting joint venture to create a leading technical centre of excellence here in Oman. Our aim is to provide world-class, internationally accredited development pathways to develop the growth and capabilities of future and existing personnel supporting the energy sector. TPO will work collaboratively with industry to ensure we provide the highest level of training for young Omanis, thereby providing organisations with highly qualified, competent, and job-ready graduates to enter the workforce.

I am proud to lead a team of training professionals committed to the delivery of modern training programmes, utilising TPO’s state-of-the-art training facilities and live plant industry replicated training environments. Our programmes will provide a strong focus on work ethics and industry Health and Safety practices to ensure students have all the necessary personal attributes to add value to their respective companies from day one.

As a result of our unique proposition, where we blend workshop, classroom and experiential training, I am confident TPO will be able to provide students and companies with the training solutions to meet the workforce development needs of the energy sector here in Oman.

We look forward to welcoming your new recruits and existing teams to TPO when we open our doors later this year.

Glenn Harding
General Manager, TPO
We are TPO

Oman’s newest vocational training organisation with world leading capability.

From new and bespoke facilities in Muscat and due to open later this year, TPO will deliver a range of world-class, internationally accredited technical training programmes, tailored to meet the needs of the oil and gas industry.

We will aim to provide our clients with a suite of industry-standard, competence-based training programmes which accelerate the development of skilled and competent technicians and upskill existing employees. At TPO we will utilise state-of-the-art workshops and simulators to replicate specific areas of oil and gas operations. We will provide delegates with practical and realistic hands-on training with reduced risk that at the same time eliminates loss of production revenue risk. This experimental approach will be blended with theory based classroom sessions for an overall approach to learning that is both comprehensive and immersive.

This extensive, hands-on, practical experience will allow us to fast-track the development of delegates, resulting in a significant reduction in time to work site autonomy. Courses will be delivered up to NVQ level 3, in line with NVQ and ISO standards.

Our team of multinational industry training professionals have years of extensive oil and gas International best practice experience, working with some of the world’s largest energy sector companies.

Site Capabilities

04
live process plants

320
max capacity per shift

01
dedicated multi-disciplined workshop facility

30
academic and technical trainers

14
classrooms

01
instructor for every 15-20 delegates

320

On-site medical facility

On-site counselling support

On-site canteen facilities
Developing your workforce

Our course structure

TPO will train your workforce through a combination of engaging and intensive, hands-on practical sessions to facilitate efficient and cost-effective development of personnel to recognised competence standards.

Our training programmes will enable delegates to achieve:

- NVQ level 1 – Foundation level skills, including language skills, technical maths, health and safety and business behaviours
- NVQ Level 2 – Performing Engineering Operations (PEO)
- NVQ Level 3 – Diploma in either:
  - Processing Operations
  - Electrical Maintenance
  - Mechanical Maintenance
  - Instrumentation Maintenance

We will also develop and adapt our resources to meet almost any training need quickly and efficiently, including leadership and management training.

At the core of our programmes are the themes of work ethic, safety and teamwork – themes that are reinforced daily through bespoke training strategies and methodologies. This includes:

- Self-centred learning and accountability
- Respect for individuals and adhering to the highest ethical standards
- A focus on work ethic
- An understanding of the values of teamwork and integrity through open communication, the sharing of ideas, resources and technologies
- Empowerment in decision making and unparalleled levels of autonomy

TPO will deliver comprehensive, industry relevant training solutions. This will include a variety of streams for High School leavers, diploma holders and upskilling for existing employees.

Our programmes will offer maximum flexibility and alignment to our clients’ individual requirements. Programme durations will run from 12, 18 and 24 months aligned to existing experience and capability. We will also offer short courses on request to meet company-specific requirements.

YEAR 1

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<tr>
<th>First Trimester</th>
<th>Second Trimester</th>
<th>Third Trimester</th>
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<tr>
<td>English level 2</td>
<td>English level 3</td>
<td>English level 4</td>
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<tr>
<td>Technical Maths 1</td>
<td>Technical Maths 2</td>
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YEAR 2

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<th>Fourth Trimester</th>
<th>Fifth Trimester</th>
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| Performing Engineering Operations (PEO) | Specialised training in either:
  - Processing Operations
  - Electrical Maintenance
  - Mechanical Maintenance
  - Instrumentation Maintenance

Foundation training

Students placed at level 2:

- NVQ Level 2
- NVQ Level 3

70 day trimesters

3 trimesters a year

5 days a week (35 hours)

7 hours a day

TPO: INSPIRING TECHNICAL EXCELLENCE
The TPO training journey

**NVQ level 1: Foundation programme**

Our base entry level foundation programme provides key underpinning knowledge and skills which support delegates through their learning journey. This phase is focused on embedding language skills, technical maths, health and safety and business behaviours before progressing to the technical elements of the programme.

As English is the universal language of the oil and gas industry, we ensure all delegates will have sufficient understanding to speak and understand English. This includes increased fluency in the English language to a minimum TPO EL level 4, which equates to approximately IELT level 4 to 4.5. This aspect of our training is taught using work-specific materials, for example standard operating procedures (SOP), HSSE materials and TPO training manuals.

The foundation programme lasts for approximately six months, but is tailored specifically to ensure the delegate reaches the desired level of English Language proficiency before progressing. This programme focuses on the delivery of English Language within a technical context and the curriculum is built around the specific needs of each discipline. Some examples of content for each discipline include:

**Process Training**

Our training for Production Technicians gives the delegate a theoretical understanding of the full range of plant equipment associated with the oil and gas industry. This is further enhanced by the delivery of practical training in a replicated and simulated environment across our four process training plants, each simulating operating actual plant and equipment. This combines their theoretical and practical skills with working knowledge of an operating environment, developing confidence and competence.

**Discipline Specific Training**

Delegates designated to be Maintenance Technicians will receive a combination of training in the mechanical and electrical workshop, classroom learning and practical experiential training on the process plants. Our technical training modules are comprehensive and aligned to the specific needs of each discipline.

**Specialised units**

- Producing mechanical assemblies
- Forming and assembling pipework systems
- Maintaining mechanical devices and equipment
- Wiring and testing electrical equipment and circuits
- Maintaining operated valves
- Assembling and testing electronic circuits

**Core units**

- Working safely in an engineering environment
- Working efficiently and effectively in engineering
- Using and communicating technical information
- Producing components using hand fitting techniques

**Specialised units (examples)**

- Maintenance of a range of specific oil and gas electrical plant and equipment
- As above and:
  - Diagnose and determine the causes of faults in electrical plant and equipment
  - Carry out planned maintenance and deal with variations and defects on electrical plant and equipment
  - Adjust instrument and control systems to meet operational requirements
  - Assess the performance and condition of instrument and control systems
  - Maintenance of a range of specific oil and gas instrument and control equipment

**NVQ level 2: Performing Engineering Operations (PEO)**

PEO is our introductory technical engineering programme for delegates starting out on their engineering career. It covers the basic concepts and hand-skills delegates will need to acquire to become competent engineering technicians within the oil and gas sector. This element of the programme consists of the following core and specialist units:

**CORE UNITS:**

- Oil Separation
- Gas Sweetening
- Crude Distillation
- Utilities

**SPECIALISED UNITS (EXAMPLES):**

- Diagnose and determine the causes of faults in mechanical plant and equipment
- Carry out planned maintenance and deal with variations and defects on mechanical plant and equipment
- Removal and replacement of components from mechanical plant and equipment
- Inspect mechanical plant and equipment
- Maintain a range of specific oil and gas mechanical rotating and static equipment
- Reinstate the work area after completing maintenance work of process engineering plant and equipment
- Minimise risk to life, property and environment within process engineering environments
- Handover of process engineering plant and equipment
- Maintain effective working relationships within process engineering maintenance
- Interpret detailed mechanical information from technical sources

**NVQ level 3:**

As a result, delegates gain hands-on experience of operating actual plant equipment within a safe and controlled training environment. This combines their theoretical and practical skills with working knowledge of an operating environment, developing confidence and competence.

**MECHANICAL SPECIFIC CONTENT:**

- As above and:
  - Diagnose and determine the causes of faults in mechanical plant and equipment
  - Carry out planned maintenance and deal with variations and defects on mechanical plant and equipment
  - Remove and replacement of components from mechanical plant and equipment
  - Inspect mechanical plant and equipment
  - Maintenance of a range of specific oil and gas mechanical rotating and static equipment
  - Handover of process engineering plant and equipment
  - Minimise risk to life, property and environment within process engineering environments
  - Handover of process engineering plant and equipment
  - Maintain effective working relationships within process engineering maintenance
  - Interpret detailed mechanical information from technical sources

**ELECTRICAL SPECIFIC CONTENT:**

- As above and:
  - Diagnose and determine the causes of faults in electrical plant and equipment
  - Carry out planned maintenance and deal with variations and defects on electrical plant and equipment
  - Remove and replacement of components from electrical plant and equipment
  - Assess the performance and condition of electrical plant and equipment
  - Maintenance of a range of specific oil and gas electrical plant and equipment

**PROCESS ENGINEERING MAINTENANCE EXAMPLE CONTENT:**

- Handover of process engineering plant and equipment
- Minimise risk to life, property and environment within process engineering environments
- Reinstate the work area after completing maintenance work of process engineering plant and equipment
- Work safely, minimise risk and comply with emergency procedures
- Maintain effective working relationships within process engineering maintenance
- Interpret detailed mechanical information from technical sources
Experiential learning delivers high value outcomes

Through the use of our four bespoke process training plants, which replicate operational scenarios encountered on live plants, we will equip delegates with the necessary knowledge and skills in a realistic yet safe environment.

Our process training plants are being built to exactly the same industrial standards as the facilities they are designed to replicate. This will allow us to offer a much more realistic training programme than computer based systems alone. In this way we will provide the most accurate and immersive learning environment possible.

We will help delegates prepare for any scenario, by replicating routine activities as well as a wide range of faults in real-time — without any of the repercussions of doing so on a live facility. This approach will help to identify any gaps in competence more easily and avoid exposing personnel or assets to operational risks.

Delegates will gain experience and knowledge in:

- Pre-commissioning
- Commissioning
- Start-up
- Shutdown
- Routine operations
- Emergencies
- Troubleshooting
- Maintenance

When learning on process training plants, delegates generally require less supervision compared to a live plant, which creates a safe environment for them to make mistakes. This type of learning encourages delegates to put into practice the training they have received and resolve the issues themselves.

Training on a process training plant also provides an ideal opportunity for all disciplines to work together — electrical, mechanical, instrumentation and control, HSE, process operations — aiding the development of teamwork skills alongside the acquisition of technical expertise.

Pilot plant highlights

- Two phase separators/
  three-phase separators
- Distributed Control System/
  Programmable Logic Controllers
- Foundation Fieldbus/Hart/
  Modbus/Wireless Instrumentation
- Customised process and
  operator interface to match
  with the current installations
- Provision to practice measurements
  such as pressure, level, temperature
  and flow controls
- Process Hook up close
to Real Plant
- Certified Pressure Vessels
  (‘U’ stamp)

Why you should choose us:

- Recognised skills and professional development pathways to international standards of best practice
- A supportive and innovative learning environment with world-class facilities
- State of the art training equipment and technologies, from integrated E-Learning platforms to four dedicated process training plants that simulate real life working scenarios

For further information on pricing, packages and company specific programmes please contact:

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