

Course Catalogue & Schedule 2024



Petrotech Training & Services

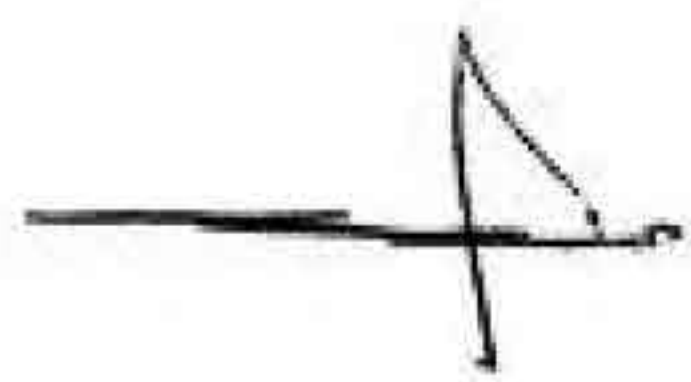
Forewords

At Petrotech, we have established an organization comprising of well acclaimed professionals (Qualified Senior Consultants) with vast amount of experience in Oil, Gas & Petrochemical organizations in Middle East, especially in GCC. (QP & KNPC)

The main objectives of our organization are, as follows:

- Training your staff to the best efficient methodology leading to better understanding of the process/equipment. Participants will benefit from in-depth training through well-designed courses, covering theory & practical application of the real work environment including troubleshooting of actual cases.
- Participants will be able to learn different approaches to run the plant safely, monitor the plant performance, troubleshoot plant problems, optimize the process from all aspects, reduce operating costs & thus improving profitability.

We are confident that we are offering the best training at a very competitive price. Therefore, we seek a long term partnership for Manpower Development from entry level staff to experienced staff. This could be done via our standard or customized courses.



Monir Abdel Samie Ahmed

Chief Executive Officer (CEO)

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Petrotech Profile

Petrotech Company was established in 2015 to provide an integrated solution for Oil, Gas, Petrochemical & industrial sector, carrying a consolidated experience of hundreds of years in the field.

Our Vision

Our Vision is to become one of the best solution providers for Oil, Gas, Petrochemical & Industrial sector across all organization segments in Middle East & Far East.

Our Mission

To provide optimum integrated solution for the clients from the safety, technical & economical point of view.

Values

- Service Excellence
- Collaboration as partners
- Entrepreneurial mindset
- Innovation
- Transparency

Objectives

- All of our services are oriented to practical & real life approaches rather than theoretical ones, company consultants have vast experience and are closely working with renowned international professional associations and societies such as API, ASNT, NACE, AWS, CSWIP, ASME, etc.

Core areas of business

1. For existing facility
 - 1.1 Review the facility safety, operations, inspection & corrosion monitoring procedures.
 - 1.2 Optimize the facility performance to reduce the operating cost & improve the profitability.
 - 1.3 Perform troubleshooting via long or short term contract.
 - 1.4 Train facility staff to improve the performance including technical & non-technical training.
 - 1.5 Act as PCR (Plant Change Request) Committee for all modifications from feasibility study until commissioning.
 - 1.6 Carrying out On job Training (OJT)

2. For new facility

- 2.1 PMC (Project Management Consultant) for any phase of a project or all project phases from feasibility studies until commissioning & performing test runs.

Competency based Assessment Approach

Competency Based Assessment

This novel approach allows you to identify skill gap of an employee that hinders his level of performance required in light of specified performance standards. An employee on his own can determine which training is required for skill development. The unit of progression in a competency based training system, is mastery of knowledge and skills and is learner focused. Two key components of competency-based training are:

- Skill – a task or group of tasks performed to a specified level of proficiency which typically involves the manipulation of tools and equipment, or expertise that is knowledge or attitude-based.
- Competency – a skill performed to a specified standard under specific conditions.

Why Competency based Assessment

The key to competency assessment is that it is based on actual skills and knowledge that an employee can demonstrate in the workplace. This is different to other approaches where there is no requirement to demonstrate knowledge and skills – like approaches where people just answer questions as a test of their knowledge and skills. The problem with testing is that it doesn't guarantee that a person will be able to do something – it just verifies that they know something.

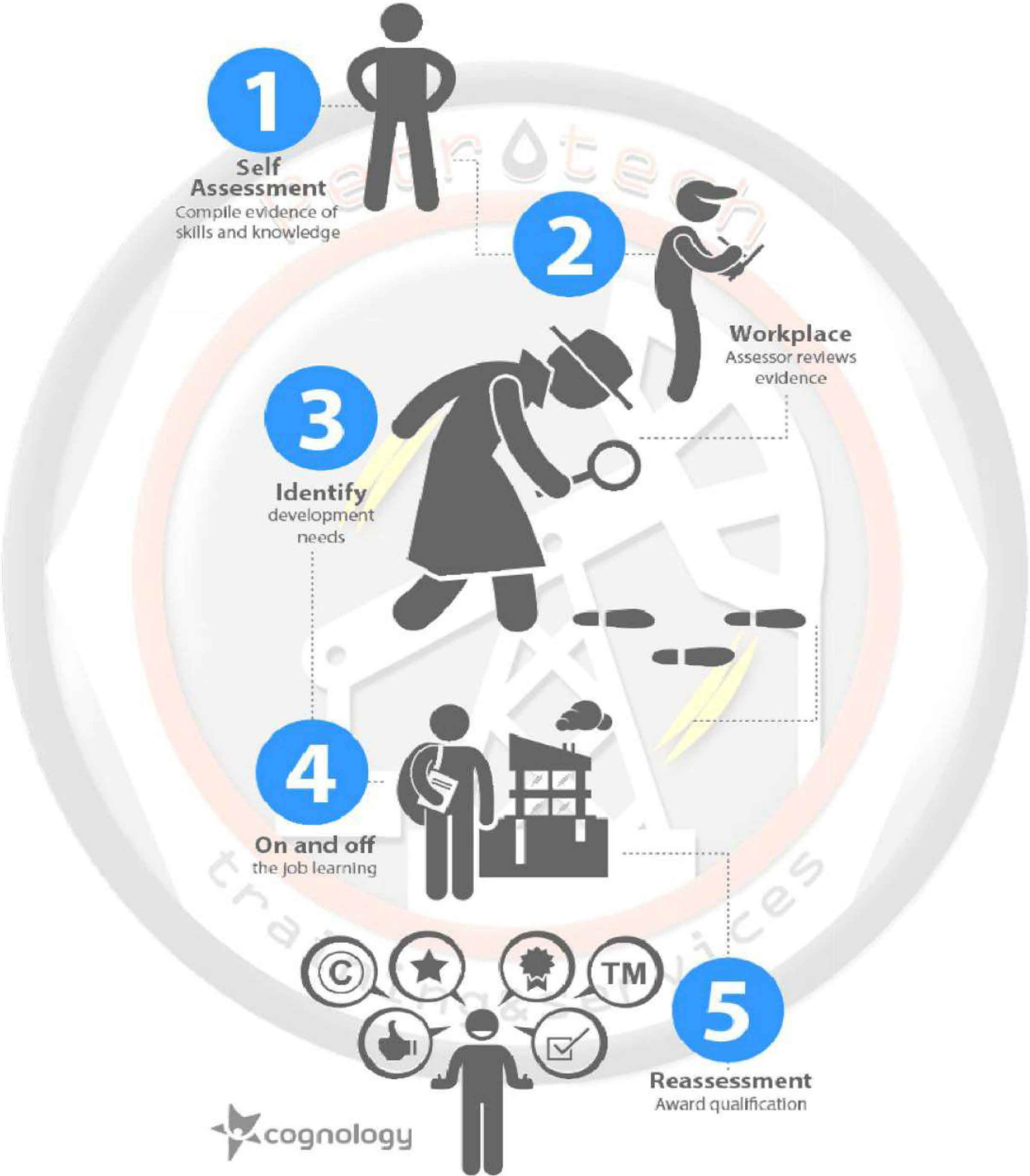
COMPETENCY ASSESSMENT FOR ORGANIZATION

- Your organization will benefit from increased productivity and profitability by ensuring employees have the capability to meet their objectives.
- More objective with assessment being carried out 'on the job'.
- Training is only provided for areas identified as needing development.
- Reduced training costs because learning and development can occur on the job.
- You can create project teams of people with complementary skills.
- Competency data is the basis for dynamic succession planning.

COMPETENCY ASSESSMENT FOR PEOPLE

- Self-driven process – learning occurs at the person's own pace and on the job.
- Existing knowledge and prior learning are recognized.
- Competence is shown by being able to demonstrate skills.
- Fairer and more objective assessment.
- Builds knowledge and skills that are directly useful to the person in their job and for future roles

Typical Competency Assessment Process



Operation Courses

Code	Course Title
PT-01	Mechanical Completion, Pre-commissioning & Commissioning
PT-02	Gas Sweetening
PT-03	Natural Gas/Associated Gas Processing
PT-04	Fluid Catalytic Cracking, Alkylation and MTBE Process
PT-05	Steam Turbines Operation & Troubleshooting
PT-06	Burner Management Systems
PT-07	Sulfur Recovery & Solidification
PT-08	Fundamentals of Corrosion & Corrosion Control (Process)
PT-09	Advanced Corrosion Management (Process)
PT-10	Gas Plant Troubleshooting & Special Problems
PT-11	Basics of Petrochemical Industry
PT-12	Gas Processing Treatment & Sulfur Recovery
PT-13	Troubleshooting in Process Plant (1)
PT-14	Improving Profitability
PT-15	Planned Shut Down & Critical Activities, Isolation, Startup & Commissioning
PT-16	Advanced LPG, NGL & LNG Technology
RO-01	Oil Refining Technology
RO-02	Fired Heater Operation , Design and Maintenance
RO-03	Heat Transfer Equipment Operation, Design, Start-Up and Commissioning
RO-04	Naphtha Hydro-treating Technology
RO-05	Oil Refinery Process for Operators
RO-06	Continuous Catalyst Regeneration (CCR)
RO-07	Fundamental of Catalyst in Oil & Gas Industry
RO-08	MEROX Process & Technology
RO-09	C5-C6 Isomerization Process Operations Training
RO-10	OJT on C5-C6 Isomerization Process
RO-11	Hydrocarbon Losses
RO-12	Furnaces: Safe Operation & Optimization
RO-13	Basic Operation Principles
RO-14	Troubleshooting in Process Plants (2)
RO-15	Distillation Technology

Upstream Courses

Code	Course Title
UC-01	Hydrocarbon Dew Pointing
UC-02	Natural Gas Dehydration & Sweetening Technology
UC-03	Water Flooding
UC-04	Conceptual Field Development
UC-05	Reservoir management
UC-06	Integrated Production Modeling

Process Engineering Courses

Code	Course Title
PE-01	Pressure Safety Relief Devices, Design, Operation & Troubleshooting (API 20/521/526)
PE-02	Aspen Hysys Simulation
PE-03	Fundamentals of Equipment Selection & Sizing
PE-04	Flare & Valuable Gases Recovery System
PE-05	Piping & Pipelines Network Design, Optimization & Simulation
PE-06	Towers Internal

Utility Courses

Code	Course Title
UA-01	Boiler Water Treatment
UA-02	Cooling Water Treatment
UA-03	Waste Water Treatment
UA-04	Water Treatment Technology
UA-05	Boilers Technology
UA-06	Steam Systems

Oil Movement Courses

Code	Course Title
OM-01	Oil Movement, Storage & Troubleshooting

Operation Planning & Schedule Courses

Code	Course Title
OP-01	Production Planning and Scheduling of Refinery Operations
OP-02	Oil Refinery LP Modelling & Economics
OP-03	Refinery-Petrochemical Integration & Economics
OP-04	Refinery Economics

Marine Courses

Code	Course Title
MG-01	Ship Calculations and Documents
MG-02	Marine Management & Loss Control
MG-03	Unload Marine Operation
MG-04	Gas Carrier(Transition, Transportation & Loss Control for Propane, Butane & LNG)
MG-05	Oil Spill
MG-06	Safety Management of Marine Terminal Oil / Gas Tankers
MM-001	Bollard Pull testing
MM-002	Deep-water Riser Engineering
MM-003	Dry Docking & Underwater Repairs
MM-004	Efficient Operation of Marine Diesel
MM-005	Hull & Structural Survey
MM-006	Introduction to Quality systems
MM-007	International Ship & Port Facility Security code – Basic Course
MM-008	International Ship & Port Facility Security code – Advanced Course
MM-009	Shipyard Business Development
MM-010	Maintenance and Repair of Diesel Fuel Injection Systems
MM-011	Maintenance and Repair of Marine Units
MM-012	Maintenance of Offshore Systems
MM-013	Marine Vehicle Stability Assessment: Basic Concepts
MM-014	Marine Vehicle Stability Assessment: Computer Simulations
MM-015	Maritime Security – Basic Course
MM-016	Maritime Security – advanced Course
MM-017	Maritime Labor Convention 2006 (MLC) – Basic Course
MM-018	Maritime Labor Convention 2006 (MLC) – Advanced Course
MM-019	Asset Integrity Management Risk Based Inspection
MM-020	Subsea Pipeline Engineering
MM-021	Subsea Production Systems Engineering
MM-022	Structural Design of Offshore Platforms
MM-023	ISO 9001 Management System Refresh for Lead Auditor
MM-024	ISO 9001 Management System Lead Auditor

Laboratory Courses

Code	Course Title
LAB-01	Test Methods for Crude Oil and Petroleum Products
LAB-02	Water Analysis in Petroleum Industry
LAB-03	Laboratory Skills
LAB-04	Quality Management System(QMS) Lead Auditor Course with Specific Reference ISO/IEC 17025
LAB-05	Leadership Management and Supervisory
LAB-06	Introduction Program for the requirements of ISO 17025
LAB-07	Good Laboratory Practice
LAB-08	Modern Laboratory Management
LAB-09	Principles of Analytical Chemistry in Various Industries and Environmental Measurements
LAB-10	Modern Laboratory Safety & Health (LSH)

Mechanical Courses

Code	Course Title
MC1	Basic Hydraulic Systems
MC2	Basic Mechanical Engineering
MM-01	Compressors Technology
MM-02	Pumps Technology for Mechanical Engineering
MM-03	Pumps Technology for Mechanical Technician
MM-04	Pumps Technology for Operation Engineering
MM-05	Pumps Technology for Operation Technician
MM-06	Fire Pumps
MME-001	Pump technology, selection, operation maintenance
MME-002	AVR Microcontrollers Programming Applications
MME-003	ARM Programming Applications
MME-004	Rolling – Contact Bearings and its Maintenance
MME-005	Elevators, Operation and Maintenance
MME-006	Predictive and Preventive Maintenance

Maintenance Planning Courses

Code	Course Title
MP-01	Plant Shutdown & Turnaround Management
MP-02	Maintenance Planning, CMMS & Reliability

Electrical Courses

Code	Course Title
EC-01	Electrical Distribution Equipment Operation & Maintenance
EC-02	Electrical Equipment & Control Systems: Commissioning , Testing & Start-up of Electrical Systems
EC-03	Starting Methods for Induction Motors, Applications and Power Saving
EC-04	Uninterruptible Power Supplies (UPS)
EC-05	Power Factor Improvement
EC-06	Protection of Electrical Power System (Basic Level)
EC-07	Protection of Electrical Power System (Advanced Level)
EC-08	Practical Troubleshooting of Electrical Equipment and Control Circuits
EC-09	Transformer Operational Principles , Selection & Troubleshooting
EC-10	Fundamental Electrical & Electronics (PIENSO)
EC-11	Fundamental Hydraulics (PIENSO)
EE -001	Synchronous Generators Installation, Operation, Testing and Troubleshooting
EE -002	Power Quality: Problems & Solutions
EE -003	IEEE Guide for Array and Battery Sizing in Stand-Alone Photovoltaic (PV) Systems IEEE Std 1562™-2007
EE -004	Design, Monitoring, Maintenance, and Troubleshooting of Cathodic Protection Systems
EE -005	Power Transformers Installation, Operation, Testing and Troubleshooting
EE -006	Fundamentals of AC drives
EE- 007	Design of Electrical Panels
EE-012	Automatic Transfer Switch (ATS)
EE- 015	Energy Efficiency and Management
EE -016	Energy Auditing
EE -017	Energy Management for Electrical Systems
EE -018	Energy Management for Mechanical Systems
EE -019	Printed Circuit Board (PCB): Design, fabrication, assembly and testing
EE -024	Industrial Electrical Motor Drive System
EE -026	Design of Motor Control Center (MCC)

Instrumentation Courses

Code	Course Title
INS-01	Sizing, Selection &Applying Control Valves
INS-02	Safety Instrumented Systems & Emergency Shutdown Systems (ESD) for Process Industries
INS-03	Instrumentation Systems Maintenance & Troubleshooting
INS-04	Programmable Logic Control(PLC)-Basic Course
INS-05	Programmable Logic Control(PLC)-Advanced Course

INS-06	Fire & Gas Detection Systems
EE- 008	Process Control and plant performance
EE -009	Digital control and Protection
EE -010	Uninterruptable Power Supplies (UPS)
EE -013	Advanced Automation system (SCADA and DCS)
EE -014	Automation system Fundamentals
EE -022	Siemens Simatic S7 PLC
EE -023	Introduction to SCADA system
EE -025	Introduction to Programmable Logic Controllers (PLC)
EE -027	Micro-processor and microcontroller application

Communication & Electronics Courses

Code	Course Title
EC- 001	3G and Beyond: Advanced Wireless Technologies
EC -002	Matlab Fundamentals for Engineers
EC -003	Network Course (CCNA Routing and Switching)
EC -004	Radio Principals
EC -005	Transmission Lines (T.L.)
EC -006	HF.VHF. UHF AND Satellite Antenna Selection
EC -007	Smart Antenna Technology
EC -008	Sensors Applications and Instrumentations
EC -009	Digital Image Processing Using Matlab
EC -010	Optical Communications
EC -011	Analog and Digital Electronic Circuits
EC -012	Solar Cells Technology
EC -013	Circuits Analysis by Computers
EC -014	Integrated Circuits Technology
EC- 015	Analog Integrated Circuits
EC 016	Digital Integrated Circuits
EC 017	Electronic Devices Theory and Applications
EC 018	FPGA Field-Programmable gate Arrays
EC 019	VHDL Very-High-Speed Integrated Circuits Hardware Description Language

API Courses

Code	Course Title
AP-01	API 510 (Preparatory Course for API 510 Authorized Pressure Vessel Inspector Examination Certification) + Exam
AP-02	API 570 (Preparatory Course for API 570 Authorized piping Inspector Examination Certification) + Exam
AP-03	API 653 (Preparatory Course for API 653 Authorized Above ground Storage Tank Inspector Examination Certification) + Exam
AP-04	API TES - Tank Entry Supervisor + Exam
AP-05	API 1169 - Pipeline Inspector + Exam
AP-06	API 571 - Corrosion and Materials Professional + Exam
AP-07	API 577 - Welding Inspection and Metallurgy Professional + Exam
AP-08	API 580 - Risk Based Inspection Professional + Exam
AP-09	API 936 - Refractory Personnel + Exam
AP-10	API SIFE - Source Inspector Fixed Equipment + Exam
AP-11	API 579 - Fitness For Service

ASME Courses

Code	Course Title
AS-01	ASME Section I, Power Boilers
AS-02	ASME Section IV, Heating Boilers
AS-03	ASME Section V, Non-Destructive Examination
AS-04	ASME Section VIII, Div. 1, Pressure Vessels
AS-05	ASME Section IX, Welding and Brazing Qualifications
AS-06	ASME B31.1, Power Piping
AS-07	ASME B31.3, Process Piping

Welding Courses

Code	Course Title
WD-01	AWS/CWI- Certified Welding Inspector + Exam
WD-02	Certified Welding Sales Representative + Exam
WD-03	Welding Fundamentals
WD-04	Fabrication Math
WD-05	Metallurgy For the Non-Metallurgist
WD-06	Safety in Welding
WD-07	Understanding Welding Symbols
WD-08	Economics of Welding
WD-09	Science of Non-Destructive Testing

Non-Destructive Testing Courses

Code	Course Title
AN-01	ASNT Level I & II in Visual Inspection (VT) + Exam
AN-02	ASNT Level I & II in Radiographic Testing (RT) + Exam
AN-03	ASNT Level I & II Ultrasonic Testing (UT) + Exam
AN-04	ASNT Level I & II in Magnetic Particle Testing (MT) + Exam
AN-05	ASNT Level I & II in Dye Penetrant Testing (PT) + Exam

National Board of B & PV Courses

Code	Course Title
NB-01	National Board Inspection Code, Part 1, Installation
NB-02	National Board Inspection Code, Part 2, Inspection
NB-03	National Board Inspection Code, Part 3, Repairs and Alterations
NB-04	Operation, Installation & Inspection of Pressure Relief Devices + Exam

General Inspection & Corrosion Courses

Code	Course Title
GIC-01	Pressure Relief Devices Integrity Management System
GIC-02	Piping Integrity Management System
GIC-03	Pressure Vessel Integrity Management System
GIC-04	Fundamentals of Failure Analysis
GIC-05	Fundamentals of Corrosion
GIC-06	Pressure Vessel Installation, Operation, Inspection & Repair
GIC-07	Heat Exchanger Installation, Operation, Inspection & Repair

Safety & Environment Courses

Code	Course Title
SE-01	Risk Assessment and Management
SE-02	Safety Management through Behavior Change
SE-03	Monitoring and Auditing Safety Performance
SE-04	Process Safety Management
SE-05	HSE Incident, Near Miss Reporting and Incident-Accident Investigation
SE-06	Safety in Maintenance and Construction Works
SE-07	Safety Golden Rules for Work
SE-08	Behavioral Safety and Securing of Working Environment
SE-09	Hazardous Area Classification
SE-10	Hazard Communication
SE-11	Preventing Human Error
SE-12	Hazard Identification & Risk Assessment
SE-13	Environmental Impact Assessment (EIA)
SE-14	Pollution Prevention in Petroleum Refinery
SE-15	Hazardous Waste in Petroleum Industry
SE-16	Solid Waste Management
SE-17	HAZOP & HAZOP Applications (Lev.1)
SE-18	HAZOP Practical Study Lev.2
SE-19	Crisis Management
SE-20	Incident Investigation
SE-21	Fire Protection for Operation (Theoretical)
SE-22	Fire and Explosion Management systems
SE-23	Fundamentals of Process Hazard analysis PHA

SE-24	Fall Protection
SE-25	Process Safety in Oil & Gas Industry
SE-26	HAZOP Leader (Awareness)
SE-27	Fire Prevention and Control
SE-28	Loss Prevention Engineering

Contracts & Project Management Courses

Code	Course Title
CPE-01	Drafting Invitation to Bid for Mega Projects
CPE-02	Model of Contracts
CPE-03	Contracts Negotiations

Peinso Courses

Code	Course Title
PN-01	Introduction to AutoCAD
PN-02	AutoCAD 2D
PN-03	AutoCAD 3D
PN-04	Introduction to Offshore Survey
PN-05	Hydrographic Survey
PN-06	Positioning and Nav. Systems
PN-07	Offshore Survey Engineering
PN-08	Underwater Positioning Course
PN-09	Underwater Inspection
PN-10	Hydrographic Survey Data Processing
PN-11	Commercial ROV Introduction and Familiarization
PN-12	Commercial ROV Technical Course
PN-13	Offshore Commercial ROV Practical Training

Administrative Skills Courses

Code	Course Title
AdS1	Administrative Support
AdS2	Basic Bookkeeping
AdS3	Business Writing
AdS4	Collaborative Business Writing
AdS5	Executive & Personal Assistants
AdS6	Meeting Management
AdS7	Organizational Skills
AdS8	Social Media in the Workplace

AdS9	Supply Chain Management
Personal Development Courses	
Code	Course Title
PD1	Anger Management
PD2	Attention Management
PD3	Being a Likable Boss
PD4	Critical Thinking
PD5	Emotional Intelligence
PD6	Goal Setting & Getting Things Done
PD7	Improving Mindfulness
PD8	Increasing Your Happiness
PD9	Job Search Skills
PD10	Managing Workplace Anxiety
PD11	Personal Productivity
PD12	Public Speaking
PD13	Social Intelligence
PD14	Social Learning
PD15	Stress Management
PD16	Work-Life Balance
Human Resources Courses	
Code	Course Title
HR1	Business Succession Planning
HR2	Developing a Lunch & Learn
HR3	Employee Onboarding
HR4	Employee Recruitment
HR5	Generation Gaps
HR6	Health & Wellness at Work
HR7	Hiring Strategies
HR8	Human Resource Management
HR9	Measuring Results From Training
HR10	Millennial Onboarding
HR11	Talent Management
HR12	Train the Trainer
HR13	Workplace Diversity
HR14	Workplace Harassment
HR15	Workplace Violence

Career Development Courses

Code	Course Title
CD1	10 Soft Skills You Need
CD2	Assertiveness & Self Confidence
CD3	Communication Strategies
CD4	Creative Problem Solving
CD5	Developing Creativity
CD6	Digital Citizenship
CD7	Entrepreneurship
CD8	Interpersonal Skills
CD9	Negotiation Skills
CD10	Personal Branding
CD11	Project Management
CD12	Telework & Telecommuting
CD13	Time Management

Sales & Marketing Courses

Code	Course Title
SM1	Body Language Basics
SM2	Call Center Training
SM3	Creating Great Webinar
SM4	Employee Recognition
SM5	Internet Marketing Fundamentals
SM6	Marketing Basics
SM7	Media & Public Relations
SM8	Overcoming Sales Objectives
SM9	Presentation Skills
SM10	Proposal Writing
SM11	Sales Fundamentals
SM12	Trade Show Staff Training

Supervisors & Managers Courses

Code	Course Title
SMg1	Budget & Financial Reports
SMg2	Coaching & Mentoring
SMg3	Developing New Managers
SMg4	Employee Motivation
SMg5	Facilitation Skills
SMg6	Knowledge Management
SMg7	Leadership & Influence
SMg8	Lean Process & Six Sigma
SMg9	Manager Management
SMg10	Middle Manager
SMg11	Office Politics for Managers

SMg12	Performance Management
SMg13	Supervising Others
SMg14	Virtual Team Building & Management
Workplace Essentials Courses	
Code	Course Title
WE1	Appreciative Inquiry
WE2	Business Acumen
WE3	Business Ethics
WE4	Business Etiquette
WE5	Change Management
WE6	Civility in the Workplace
WE7	Conflict Resolution
WE8	Customer Service
WE9	Delivering Constructive Criticism
WE10	Developing Corporate Behavior
WE11	Handling a Difficult Customer
WE12	Risk Assessment & Management
WE13	Safety in the Workplace
WE14	Team Building for Managers
WE15	Teamwork & Teambuilding

Above Details will be finalized according to the agreement with the client.