OIL & GAS

TECHNOLOGY

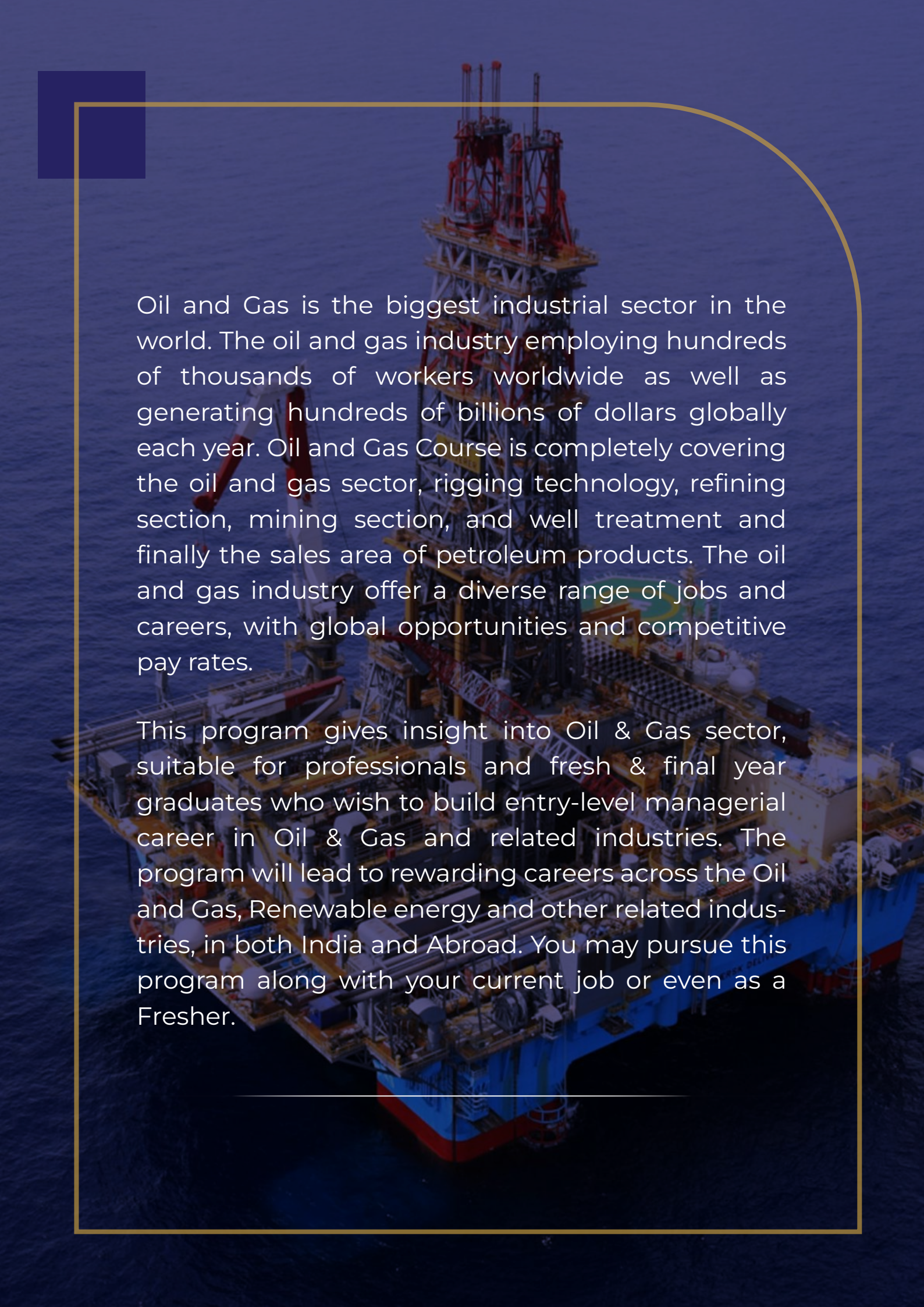
ASME SETTING THE STANDARD · AWS American Welding Society · ASNT · TÜV SÜD · DAC Dubai Accreditation Center · JGi JAIN Deemed-to-be University · JAINx The Learning Hub

www.capitalits.in | info@capitalits.in

+91 70253 68551 | +91 9895906851

TC 25/1619(6), Vijaya Plaza, S S Covil Road, Thampanoor, Thiruvananthapuram

CAPITAL INSTITUTE OF TECHNICAL STUDIES



Oil and Gas is the biggest industrial sector in the world. The oil and gas industry employing hundreds of thousands of workers worldwide as well as generating hundreds of billions of dollars globally each year. Oil and Gas Course is completely covering the oil and gas sector, rigging technology, refining section, mining section, and well treatment and finally the sales area of petroleum products. The oil and gas industry offer a diverse range of jobs and careers, with global opportunities and competitive pay rates.

This program gives insight into Oil & Gas sector, suitable for professionals and fresh & final year graduates who wish to build entry-level managerial career in Oil & Gas and related industries. The program will lead to rewarding careers across the Oil and Gas, Renewable energy and other related industries, in both India and Abroad. You may pursue this program along with your current job or even as a Fresher.

Module 1

Oil and Gas Production

» Introduction to Oil and Gas industry, Exploration &Production

» Upstream process section, Midstream onshore, Offshore, Drill bits, Seismic survey etc

» Project execution plan

» Duties & responsibilities of a process engineer

Reservoir and Well heads

» Crude oil and natural gas

» The reservoir Drilling technology, Well casing, Wellhead Artificial lift, Well workover

» Intervention and stimulation, Rig operation, Pump Operations.

» Well Testing, Well Head Maintenance & Mud engineers

» Sub sea wells, exploration & drilling.

Module 2

Module 3

Separation and Gas Treatment and Compression

» Test Separators, Production separator, Second stage separation, Third stage separation, Water treatment.

» Heat exchangers, Scrubber and Reboiler.

» Gas treatment and compression

» Oil & Gas storage, metering and report.

Gas Process, Pipelines, LNG

» Acid gas Removal, Dehydration mercury removal, Nitrogen Injection NGI recovery and treatment

» Pipeline terminal Gas pipelines, Compressor and Valve Stations.

» LNG, Liquidation, Storage transport and gasification.

Module 4

Module 5

Refining and petrochemical

» Fractional distillation.

» Basic Products upgrading and advanced process blending and distribution

» Petrochemical Refinery Operation.

» Aromatics

» Olefins

» Synthesis gas

Module 6 & 7

Digital Oil Field

Unconventional and convention resources and environmental effects and safety

Module 8

Mechanical QA/QC

» Units, Dimensions, and Measurements

» Basic Metallurgy for QA/QC

» Type of Material

» Steel: Properties & Uses in Industries

» Material Properties

Welding Inspection

» Duties and Responsibilities

» Welding Terms, Definition and Symbols

» Welding Techniques

» Welding Consumables

» Material Inspection

» Codes and Standards

» Weld Repairers

» Residual Stress and Distortion

» Heat Treatment

Module 9

Module 10

Welding of Steel

» Welding defects and its remedy

» Heat treatment, preheat, PWHT

» WPS, PQR, WPQR

Piping & Pipeline Engineering

» Introduction to Pipes, Tubes, Fittings, Flanges, Valves etc

» Piping materials & Piping components

» Piping codes and standards, Piping Symbols

» Piping and Pipeline Engineering

» NPS

» Block flow diagram

» Process flow diagram

» Piping and instrumentation diagram

» Equipment layout

» Pipe arrangement drawings section and elevation

» Pipe routing

» Pipe supports, Piping isometrics

» Pipeline design & Pipeline construction

Module 11

Module 12

NDT

» Visual training [VT]

» Penetrant Testing [PT]

» Magnetic Particle Testing [MPT]

» Ultrasonic Testing [UT]

» Radiographic Testing [RT]

» Radiographic Testing Film Interpretation [RTFI]

» Inspection test plan

» Procedure

» Reports

International Codes & Standards

» AWD D 1.1 : Structural Welding [steel]

» ASME B 31.3 : process piping

» ASME BPVC Section IX : Qualification standard for welding, Brazing and Fusing

» ASME BPVC Section V : Non – Destructive Examination

» ASME BPVC Section VIII : Rule for construction of Pressure Vessels

» API Standard 1104 : Welding of Pipelines and related facilities

Module 13

Module 14

Practicals

» Non – Destructive Testing

» Welding Inspection

» Piping

Professional CV writing

» Professional CV writing

» Interview preparation

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