Petroleum - Oil and Gas - Engineering: Oil and Gas Operation, Pipeline Engineering
Non-Destructive Testing (NDT), Health, Safety, Project Management and Business Report Writing Programme, Leading to
Postgraduate Diploma in International Petroleum - Oil and Gas - Engineering and Business Management

# **EIRODC** Postgraduate Training Institute





#196

Petroleum - Oil and Gas - Engineering:
Oil and Gas Operation, Pipeline
Engineering
Non-Destructive Testing (NDT), Health,
Safety, Project Management and Business
Report Writing

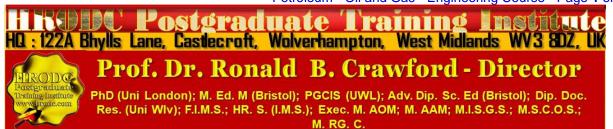
# **Programme**

**Leading To:** 

# POSTGRADUATE DIPLOMA IN

International Petroleum - Oil and Gas - Engineering and Business Management

Petroleum - Oil and Gas - Engineering Course - Page 1 of 55



Petroleum - Oil and Gas - Engineering: Oil and Gas Operation, Pipeline Engineering
Non-Destructive Testing (NDT), Health, Safety, Project Management and Business Report Writing Programme, Leading to
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# HRODC Postgraduate Training Institute

A Postgraduate — Only Institution

#### Websites:

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122A Bhylls Lane Wolverhampton WV3 8DZ West Midlands, UK

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# HRODC Postgraduate Training Institute, A Postgraduate-Only Institution Our UK Government's Verification and Registration

Our Institute is Verified by, and Registered with, the United Kingdom (UK) Register of Learning Providers (UKRLP), of the Department for Education (DfE). Its UK Provider Reference Number (UKPRN) is: 10019585 and might be located at: https://www.ukrlp.co.uk/.

#### **Programme Coordinator:**

Prof. Dr. R. B. Crawford is the Director of HRODC Postgraduate Training Institute, A Postgraduate-Only Institution. He has the following Qualifications and Affiliations:

- Doctor of Philosophy {(PhD) {University College London (UCL) University of London)};
- MEd Management (University of Bath);
- > Postgraduate (Advanced) Diploma Science Teacher Ed. (University of Bristol);
- Postgraduate Certificate in Information Systems (University of West London, formerly Thames Valley University);
- Diploma in Doctoral Research Supervision, (University of Wolverhampton);
- Teaching Certificate;

Petroleum - Oil and Gas - Engineering Course - Page 2 of 55



PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni WIv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

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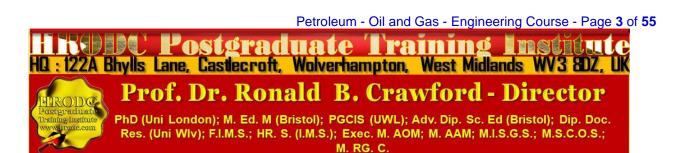
- Fellow of the Institute of Management Specialists;
- Human Resources Specialist, of the Institute of Management Specialists;
- Member of the Asian Academy of Management (MAAM);
- Member of the International Society of Gesture Studies (MISGS);
- Member of the Standing Council for Organisational Symbolism (MSCOS);
- Member of ResearchGate:
- Executive Member of Academy of Management (AOM). There, his contribution incorporates the judging of competitions, review of journal articles, and guiding the development of conference papers. He also contributes to the Disciplines of:
  - Human Resources;
  - Organization and Management Theory;
  - Organization Development and Change;
  - Research Methods;
  - Conflict Management;
  - Organizational Behavior;
  - Management Consulting;
  - Gender & Diversity in Organizations; and
  - Critical Management Studies.

#### Professor Dr. Crawford has been an Academic in the following UK Universities:

- University of London (Royal Holloway), as Research Tutor;
- University of Greenwich (Business School), as Senior Lecturer (Associate Professor), in Organisational Behaviour and Human Resource Management;
- University of Wolverhampton, (Wolverhampton Business School), as Senior Lecturer (Associate Professor), in Organisational Behaviour and Human Resource Management;
- London Southbank University (Business School), as Lecturer and Unit Leader.

#### His responsibilities in these roles included:

- Doctoral Research Supervisor;
- Admissions Tutor;
- Postgraduate and Undergraduate Dissertation Supervisor;
- Programme Leader;
- Personal Tutor



# For Whom This Course is Designed This Programme is Designed For:

- Pipeline designers, engineers and technicians;
- Project, field, installation and operations managers;
- Integrity and maintenance personnel;
- Employees seeking career enhancement;
- Professionals in supporting or aligned oil and gas sectors;
- Oil and Gas Safety Officials;
- Business Professionals;
- Project Leaders;
- Professional Staffs.

Classroom-Based Duration and Cost:				
Classroom-Based Duration:	12 Weeks (5 Days per Week)			
Classroom-Based Cost:	room-Based Cost: £45,000.00 Per Student			
Online (Video-Enhanced) Duration and Cost				
Online Duration:	20 Weeks – 3 Hours Per Day, 6 Days Per Week			
Online Cost:	£30,150.00 Per Student			

# **Classroom-Based Programme Cost includes:**

- > Free Continuous snacks throughout the Event Days;
- Free Hot Lunch on Event Days;
- Free City Tour;
- Free Stationery;
- Free On-site Internet Access;
- Postgraduate Diploma/ Diploma Postgraduate –or
- Certificate of Attendance and Participation if unsuccessful on resit.

Students and Delegates will be given a Selection of our Complimentary Products, which include:

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HQ: 122A Bhylls Lane, Castecroft, Wolverhampton, West Midlands WV3 8DZ, UK

Prof. Dr. Ronald B. Crawford - Director

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- Our Branded Leather Conference Folder;
- Our Branded Leather Conference Ring Binder/ Writing Pad;
- Our Branded Key Ring/ Chain;
- Our Branded Leather Conference (Computer Phone) Bag Black or Brown;
- Our Branded 8-16 GB USB Flash Memory Drive, with Course Material;
- Our Branded Metal Pen;
- Our Branded Polo Shirt.:
- Our Branded Carrier Bag.

Daily Schedule: 9:30 to 4:30 pm.

#### **Delivery Locations:**

- 1. Central London, UK;
- 2. Dubai, UAE;
- 3. Kuala Lumpur, Malaysia;
- 4. Amsterdam, The Netherlands;
- 5. Brussels, Belgium;
- 6. Paris, France; and
- 7. Durban, South Africa;
- 8. Other International Locations, on request.



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Module Number	Pre- existing Course #	Module Title	Page #	Credit Value
1	090	Oil and Gas Operation	10	Double
2		Advanced Project Management for Oil and Gas Operation	27	Single
3	199 m7 & 8	Health and Safety in the Oil and Gas Industry	30	Double
4	171	<b>Business Report Writing</b>	35	Double
5	197	Petroleum - Oil and Gas - Pipeline Engineering	39	Quad
6	198	Non-Destructive Testing (NDT)	44	Single

Programme for Petroleum - Oil and Gas - Engineering: Oil and Gas Operation, Pipeline Engineering, Non-Destructive Testing (NDT), Health, Safety, Project Management and Business Report Writing, **Programme** 

Leading to Postgraduate a Postgraduate Diploma in International Petroleum – Oil and Gas – Engineering and Business Management

# **Programme Objectives**

By the conclusion of the specified learning and development activities, delegates will be able to:

- Determine the importance of 3D and 4D seismic in locating oil and gas reserves;
- Understand the basic of joint venture contract;
- Differentiate upstream, midstream and downstream oil and gas industry:
- Identify what constitute horizontal, vertical and full integration activities;

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- Know the procedures involved in oil and gas exploration and production;
- Enumerate the different downstream activities;
- Specify the advantages and disadvantages of exploring vertical integration;
- Ascertain the factors favouring horizontal integration;
- Establish the governing policy among the parties in oil well lease;
- Describe the nature of long-term explicit contracts;
- Learn the basic of franchise agreement in the oil and gas sector;
- Realise the importance of joint ventures in the oil and gas exploration and production;
- Explain the rules on co-allocation of facilities;
- Understand the underlying concepts of implicit contract;
- Learn some techniques in conducting geological research and oil exploration;
- Discover the basic of drilling and mining operation;
- Distinguish natural and artificial lifts in the oil and gas production;
- Explain the principles of gas processing;
- Differentiate between Successful Efforts (SE) and Full Cost (FC) Accounting;
- Discover how oil and gas are marketed;
- Discuss the oil and gas production separator principles;
- Explain "Amine Sweetening" and "Glycol Dehydration" principles;
- Discuss the principle of Emulsion and Vertical Heater Treater;
- Learn the basic of health and safety in the oil and gas industry;
- Categorise fatal or major injuries;
- Identify the different types of accidents;
- Discover the applicable rule for over-three-day injuries to offshore workers;
- Name the different institutions and their corresponding regulations for the health and safety of workers;
- Specify the functions of safety release valves and ruptured disc;
- Explain how Pressure Safety Valve (PSV) are operated and tested;
- Discuss the principle of Hydrogen Sulphide in relation to worker's safety;
- Gain familiarity of Blow-Out Preventers (BOP);
- Recognise the new generation BOPs;
- Know how to deal with BOP's malfunctioning;
- Enumerate the objectives of safety and health management;
- Distinguish the salient feature of safety and health;



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- Determine the role of safety and health manager in the corporate structure;
- Specify the resources that are readily available in the workplace;
- Know the techniques for effective recordkeeping;
- Explain the concept of accident cause analysis;
- Establish the importance of organization of committees in maintaining the health and safety of workers in the industrial and service sectors;
- Relate the concept of safety and health economics;
- Conduct workers' training;
- Perform job placement testing in his organisation;
- Value the importance of maintaining a smoke-free workplace;
- Elucidate the concept of bloodborne pathogens in relation to the workers' safety and health;
- Know the efficient means of handling and resolving workplace violence;
- Identify several ways of avoiding hazard using the following approaches:
  - The Enforcement Approach;
  - The Psychological Approach;
  - The Engineering Approach;
  - The Analytical Approach;
  - Hazard-Classification Scale.
- Ascertain the standards set forth in federal regulation pertaining to the health and safety of the workers in the industrial and service sectors;
- Understand the underlying concept of NIOSH;
- Enforce the mandate of the federal regulation within their organisation;
- Learn how to deal with public uproar;
- Specify the role of the states in protecting the health and safety of the workers in the industrial and service sectors;
- Determine the current political trends considering the federal regulation;
- Know the rights of immigrant workers under the federal regulation;
- Develop an efficient hazard communication program and strategy;
- Exhibit a heightened understanding of the applicable international standards in the information system as it relates to the workers' safety and health;
- Realise the role of Environmental Protection Agency;
- Determine the function of Department of Homeland Security;

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- Develop effective computer information systems relative to workers' safety and health;
- Recognise the importance of process information;
- Conduct process analysis;
- Specify and suggest different operating procedures in dealing with the safety and health of the industrial workers:
- Conduct training to efficiently implement the safety process and instil disaster preparedness among them;
- Determine the importance of contractor personnel;
- Know how to deal and resolve different acts of terrorism;
- Learn how to maintain workplace security;
- Maintain buildings and facilities to guarantee workers' safety and health at the workplace in terms of the following:
  - Walking and Working Surfaces;
  - Exits:
  - Illumination;
  - Miscellaneous Facilities;
  - Sanitation.

# **Programme Contents, Concepts and Issues**

# **Module 1** Oil and Gas Operation

# M1 - Part 1: Oil and Gas Conceptual and Contextual Exploration (1)

- 3-D Seismic
- 4-D Seismic
- Acidizing a well
- AFE (Authorization for Expenditure)
- Annular space
- Annulus of a well
- Anticline

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- API gravity
- Associate gas
- Barrel Standard
- Basement rock
- BCF (billion cubic feet)
- Behind pipe.

## M1 - Part 2: Oil and Gas Conceptual and Contextual Exploration (2)

- Biomass
- Bleeding core
- Blind pool
- Blowout
- Blowout insurance
- Blue Sky Law
- Bonus Money
- BOP (blowout preventer)
- Bottom-hole pressure
- Bottom-hole pump
- Brent Crude
- Bridle
- BS&W (basic sediment and water)
- Btu (British thermal unit)
- Butane
- Cable drilling
- CAOF (calculated absolute open flow)
- Capital Funds.

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#### M1 - Part 3: Oil and Gas Conceptual and Contextual Exploration (3)

- Capital asset
- Capital costs (Oil & Gas Tax Usage)
- Capital expenditure
- Capitalization
- Carried Interest
- Casing Pipe
- Casinghead
- Casinghead gas
- Casinghead gasoline
- Caving's Rock
- Cement
- Cement squeeze
- Christmas tree
- Choke
- Clean oil
- CO2 injection.

# M1 - Part 4: Oil and Gas Conceptual and Contextual Exploration (4)

- Coal gasification
- Coal liquefaction
- Cogeneration
- Commissions
- Common carrier
- Completed well
- Condensate
- Confirmation well
- Connate water
- Conventional energy sources
- Conveyance or Conveyancing

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- Core
- Cracking
- Crude oil
- Crude oil equivalent
- Cuttings
- Deductions
- Deed
- Deepwater port
- Delay rental
- Deliverability
- Development
- Diesel oil
- Differential-pressure sticking
- Directional drilling
- Distillate
- Distillate fuel oil
- Distributor
- Division Order.

# M1 - Part 5: Oil and Gas Conceptual and Contextual Exploration (5)

- Domestic production
- Down hole
- Downstream
- Drill bit
- Drill string
- Drilling
- Drilling break
- Drilling fund
- Drilling mud
- Drilling platform
- Drilling rig

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- Drill stem test
- Dry hole
- Dry natural gas
- Dual completion
- Due Diligence
- Economic interest
- Electrical well logging
- Ethanol
- Expenses (Tax Usage)
- Exploration
- Exploratory well
- External casing packer
- Extraction plant
- Farm in
- Farm out agreement
- > Farmer's oil
- > Fault.

# M1 - Part 6: Oil and Gas Conceptual and Contextual Exploration (6)

- Fault trap
- Fee lands
- Feet of pay
- Field
- Filter cake
- Fishing
- Fishing tools
- Five-spot water flood program
- Flange up
- Flaring
- Flooding
- Flow Through concept
- Flowing well

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- Formation
- Fossil fuels
- Fracturing
- Front-end costs
- Fuel oil
- Gamma-ray logging
- Gas cap
- Gas condensate
- Gas lift
- Gas-cut mud
- Gas-oil ratio
- Gasoline
- General partner
- Geophones –
- Geophysicist
- Geothermal energy.

## M1 - Part 7: Oil and Gas Conceptual and Contextual Exploration (7)

- Gravimeter
- Gross income
- Groundwater
- Guaranteed payments
- Gun perforation
- Gusher
- Hang the rods
- Heating oil
- Heavy oil
- Held by production
- Jones Act
- History of a well
- Horizon

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- Horizontal drilling
- Horsehead
- Hydraulic fracturing
- Hydrocarbons
- Hydrometer
- Hydrostatic head
- In situ
- Independent producer
- Infill drilling
- Initial potential
- Injection well
- Intangible drilling
- Investment Tax Credit (ITC)
- Isopachous map
- Jack or Unit.

## M1 - Part 8: Oil and Gas Conceptual and Contextual Exploration (8)

- Jet fuel
- Jetting
- Joint
- Joint Operating Agreement
- Joint venture
- Junk basket
- Kelly bushing
- Kerogen
- Kerosene
- Key seating
- Kick Occurs
- Lag time
- Landman
- Landowner royalty
- Law of capture

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- Lead lines
- Lease (Oil and Gas)
- Lease acquisition costs
- Lease broker
- Lease hound
- Lease offering (lease sale)
- Lease or Sublease
- Lifting costs
- Lignite
- Limestone
- Limited partner
- Limited partnership
- LNG (liquefied natural gas)
- Logs.

#### M1 - Part 9: Oil and Gas Conceptual and Contextual Exploration (9)

- Lost circulation
- LPG (liquefied petroleum gases)
- Mid-continent crude
- Midstream or Middle distillates
- Migration
- Milling
- Mineral Rights
- MMCF Million cubic feet
- Monocline
- Mud
- Mud engineer
- Mud logger
- Multiple completion
- Natural gas
- Naval petroleum reserves
- Net profits interest

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- Net Revenue Interest (NRI)
- NGL (natural gas liquids)
- OCS (outer continental shelf)
- Octane
- Octane number
- Offering memorandum
- Offset well
- Offshore platform
- Oil column
- Oil gravity
- Oil in place
- Oil pool
- Oil rig.

## M1 - Part 10: Oil and Gas Conceptual and Contextual Exploration (10)

- Oil run
- Oil shale
- Oilfield services
- On the pump
- OPEC (Organization of Petroleum Exporting Countries)
- Operator
- Organization costs
- Outcrop
- Overriding Royalty (ORRI)
- Overthrust belt
- Packer
- Pay zones
- Payoff
- Pay-out
- Perforating gun
- Perforation
- Permeability



- Petrochemicals
- Petroleum
- Petroleum engineer
- Petroleum geologist
- Pipeline
- Pipeline gas
- Plug back
- Plugged & Abandoned (P&A)
- Plugging a well
- Pool
- Pooling
- Porosity.

#### M1 - Part 11: Oil and Gas Conceptual and Contextual Exploration (11)

- Possible reserves
- Present net value
- Primary recovery
- Primary term
- Private Placement Offering
- Probable reserves
- Producing horizon
- Producing platform
- Production
- Production test
- Proppants
- Prospect
- Proved behind-pipe reserves
- Proved developed reserves
- Proved reserves
- Proved undeveloped reserves
- Public lands

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- Public Offering
- Pump
- Pump off
- Pumping well
- Quad
- Quitclaim deed
- R&D
- Ram
- Re-entry
- Reamer
- Reclamation
- Recoverable resources.

# M1 - Part 12: Oil and Gas Conceptual and Contextual Exploration (12)

- Reef
- Refiner
- Refining
- Relief well
- Reserve
- Reserve (pool)
- Reservoir
- Reservoir pressure
- Retained Interest
- Reversionary interest
- Risk
- Roof rock
- Rotary drilling
- Round trip
- Roustabout
- Royalty
- Royalty Funds
- Run ticket

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- Running the tools
- Salt dome
- Salt-bed storage
- Sample
- Sample log
- Sandstone
- Saturation
- Schlumberger (slumber-jay)
- Scout
- Secondary recovery
- Section.

# M1 - Part 13: Oil and Gas Conceptual and Contextual Exploration (13)

- Securities
- Securities Act of 1933
- Securities Exchange Act of 1934
- Sedimentary basin
- Sedimentary rock
- Seismic exploration
- Seismograph.
- Selling Expenses
- Separator
- Service well
- Set casing
- Severance
- Severance tax
- Shale
- Shale oil
- Shale shaker
- Sharing arrangement
- Shoestring sands

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- Shoot a well
- Show
- Shut-down well/shut-in well
- Shut-in
- Shut-in pressure
- Shut-in Royalty
- Side track
- Skidding the rig
- Solution
- Sour Crude or Gas
- Source rock.

# M1 - Part 14: Oil and Gas Conceptual and Contextual Exploration (14)

- Spacing unit
- Spot market
- Spud
- Squeeze
- Steel reef
- Step-out well
- Stipper oil well
- Stock tank barrel
- Stratigraphic test
- Stratigraphic trap
- Structural trap
- Structure
- Submersible drilling barge
- Submersible pump
- Subscription
- Substructure
- Supervisory fee
- Surface rights

- Swab
- Sweet crude
- Syncline
- Syndication expenses
- Synfuels
- Synthetic crude oil (Syncrude)
- Synthetic gas
- Take-or-pay contract
- Tank bottoms
- Tanker
- Tar sand
- Tar sands.

#### M1 - Part 15: Oil and Gas Conceptual and Contextual Exploration (15)

- Tax preference items
- TCF
- Tectonic map
- Tender
- Tertiary recovery
- Therm
- Third for a quarter
- Tight formation
- Tight hole
- Tight sand
- Time value of money
- Title
- Tool pusher
- Top lease
- Total depth (TD)
- Township
- Transfer rule



- Trap
- Trip
- **Tubing**
- Turnkey
- ULCC (Ultra large crude carrier)
- **Unassociated Gas**
- Underwriter
- Undiscovered recoverable resources
- Up dip well
- Upstream
- Vapour pressure
- Viscosity
- VLCC (very large crude carrier)
- Wall sticking
- Wasting assets
- Water drive
- Water-drive reservoir
- Water flooding
- Well program
- Wellbore
- Wellhead
- West Texas Intermediate
- Wet
- Wet gas
- Whip stock
- Wildcat
- Wildcatter
- Working interest
- Work over
- Work over rig
- Write-off
- Zone
- Zone isolation

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# M1 - Part 16: Introducing the Oil Subsectors (1)

- Horizontal, Vertical and Full Integration activities, including:
  - Exploring for Oil and Gas;
  - Developing Fields;
  - Producing Oil and Gas;
  - Mining Oil Sands;
  - Extracting Bitumen;
  - Liquefying Gas by Cooling (LNG);
  - Regasifying LNG;
  - Converting Gas to Liquid Products (GTL);
  - Generating Wind Energy.
- Downstream activities including:
  - Refining Oil into Fuels and Lubricants;
  - Producing Petrochemicals;
  - Developing Bio Fuels;
  - Trading;
  - Retail Sales:
  - Managing CO2 Emission;
  - Supply and Distribution Business-To-Business Sales.
- Exploring Vertical Integration in Relation to the Following Potentially Advantages:
  - Reduction in transportation costs, where common ownership results in closer geographic proximity;
  - Improvement in the supply chain coordination;
  - Provision of more opportunities to differentiate by means of increased control over inputs;
  - Capturing of upstream or downstream profit margins;
  - Increasing entry barriers to potential competitors, for example, sole access to a scarce resource;

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- Gaining access to downstream distribution channels that otherwise would be inaccessible;
- Facilitating investment in highly specialised assets in which upstream or downstream players may be reluctant to invest;
- Exploiting core competencies;
- Capacity balancing issues, i.e., building excess upstream capacity to ensure that its downstream operations have enough supply under all demands;
- Increased flexibility to coordinate vertically-related activities may increase
- Addressing Vertical Integration, with respect to the following potential disadvantages:
  - Potentially higher costs due to low efficiencies resulting from lack of supplier competition;
  - Decreased flexibility due to previous upstream or downstream investments;
  - Decreased ability to increase product variety if significant in-house development is required;
  - Developing new core competencies may compromise existing competencies;
  - Increased bureaucratic costs.

# M1 - Part 17: Introducing the Oil Subsectors (2)

- Factors favouring horizontal integration, including:
  - Taxes and regulations on market transactions are simplified
  - Obstacles to the formulation and monitoring of contracts.
  - Strategic similarity between the vertically-related activities.
  - Sufficiently large production quantities so that the firm can Benefit from economies of scale.
  - Redressing any potential barriers of entry.
- Other factors relevant to Oil and Gas Production, incorporating:
  - Oil Well Lease;
  - Long-term explicit contracts;
  - Franchise agreements;

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- Joint ventures:
- Co-location of facilities;
- Implicit contracts (relying on firms' reputation;
- Geological Research and Oil Exploration;
- Drilling or Mining;
- Basic Drilling Operation;
- Natural vs. Artificial Lifts in Oil and Gas Production;
- Coalbed methane drilling technology;
- Principles of Gas Processing;
- Oil Well Drilling;
- Spudding Oil and Gas Wells;
- Oil and Gas Rig Operation;
- Offshore Oil Rig Operation;
- Successful Effort Accounting;
- Horizontal Drilling;
- Marketing Oil and Gas;
- Oil and Gas Production Separator Principles;
- Oil -Water Separator Offshore;
- Oil Separator;
- Principles of Amine Sweetening;
- Production Separator Principles;
- Glycol Dehydration Principles;
- Emulsions and Vertical Heater Treater Principles.

### Module 2 Advanced Project Management: The Planning Process

#### M2 - Part 1: Project Management: Overview (1)

- Project Defined;
- Distinction between Project and Task;
- Project Classification;
- Pre-Project Commissioning;
- The Project Management Concept;
- Pre-feasibility and Feasibility Studies;
- Project Life Cycle;
- Project Life Cycle Phases:
  - Project Initiation;
  - Project Planning;
  - **Project Execution:** 
    - Project Evaluation.
  - Project Completion;
  - Project Commissioning.
- Project Life Cycle Management;
- Project Portfolio Management System;
- Project Co-ordination;
- Project Sustainability;
- The Project Manager's Role.

#### M2 - Part 2: Project Initiation

- Pre-feasibility and Feasibility Studies;
- Pre-Project Commissioning;
- Basic Steps of the Project Initiation Phase;
- Using Project Selection Models/Methods:
  - Criteria for Choosing Project Selection Models;

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- Nature of Project Selection Models:
  - Nonnumeric:
    - The Sacred Cow;
    - The Operating Necessity;
    - The Competitive Necessity;
    - The Product Line Extension;
    - Comparative Benefit Model.
  - Numeric:
    - Payback Period;
    - Average Rate of Return;
    - Discounted Cash Flow/Net Present Value Method;
    - Internal Rate of Return;
    - Profitability Index.
- Critical Factors to Ensure your Project is Successful:
  - **Project Initiation Document:** 
    - The Project Charter;
    - The Project Mandate;
    - Other Project Initiation Documents.
- Identifying and Performing Stakeholder Analysis.

# M2 - Part 3: Project Planning Process (1)

- Defining the Project Scope:
  - Project Objectives;
  - Deliverables;
  - Milestones;
  - Technical Requirements;
  - Limits and Exclusions;
  - Reviews with Customers.
- Project Priority;
- The Triple Constraints;
- Work Breakdown Structure (WBS)
- Process Breakdown Structure

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- Responsibility Matrix;
- Project Planning Process.

# M2 - Part 4: Project Planning Process (2)

- Resources Needed for the Project Time Management:
  - Defining Activity;
  - Sequencing Activity;
  - Estimating Activity Resource;
  - Estimating Activity Duration;
  - Schedule Development;
  - Schedule Control;
  - Activity-on-Arrow (A-o-A) Diagrams and Critical Path Analysis;
  - Activity-On-Node (AON) Diagram;
  - Distinctions between Activity-on-Arrow (A-o-A) and Activity-On-Node (AON) Diagram;
  - Network Computation Process;
  - Using Forward and Backward Pass Information;
  - Other Practical Considerations in Developing Networks.

# M2 - Part 5: Project Planning Process (3)

- Project Cost Management:
  - Cost Estimating;
  - Cost Budgeting;
  - Cost Control.
- Project Quality Management:
  - Quality Planning;
  - Performing Quality Assurance;
  - Performing Quality Control.
- Developing the Project Plan;
- Creating a Project Network Diagram;

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- Obtaining Plan Approval;
- Evaluating the Project Charter.

#### Module 3 Health and Safety in Petroleum – Oil and Gas – Industry

#### Prioritising Workers' Health and Safety Interest While in the Workplace

#### M3. Part 1: Health and Toxic Substances

- Baseline Examinations;
- Toxic Substances;
- Measures of Exposure;
- Standards Completion Project;
- Detecting Contaminants.

#### M3. Part 2: Environmental Control and Noise

- Ventilation;
- ASHRAE Standards and Indoor Air Quality;
- Industrial Noise;
- Radiation.

# M3. Part 3: Flammable and Explosive Materials

- Flammable Liquids;
- Sources of Ignition;
- Standards Compliance;
- Combustible Liquids;
- Spray Finishing;
- Dip Tanks;
- Explosives;

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Liquefied Petroleum Gas.

#### M3. Part 4: Personal Protection and First Aid

- Protection Need Assessment;
- Personal Protective Equipment (PPE) Training;
- Hearing Protection;
- Eye and Face Protection;
- Respiratory Protection;
- Confined Space Entry;
- Head Protection;
- Miscellaneous Personal Protective Equipment;
- First Aid.

## Safety Precautions and Emergency Incident Risk Management

#### M3. Part 5: Fire Protection

- Mechanics of Fire;
- Industrial Fires;
- Fire Prevention;
- Dust Explosions;
- Emergency Evacuation;
- Fire Brigades;
- Fire Extinguishers;
- Standpipe and Hose Systems;
- Automatic Sprinkler Systems;
- Fixed Extinguishing Systems.





#### M3. Part 6: Materials Handling and Storage

- Materials Storage;
- Industrial Trucks;
- Passengers;
- Cranes:
- Slings;
- Conveyors;
- Lifting.

#### M3. Part 7: Machine Guarding

- General Machine Guarding;
- Safeguarding the Point of Operation;
- Power Presses:
- Heat Processes;
- Grinding Machines;
- Saws;
- Miscellaneous Machine Guarding;
- Miscellaneous Machines and Processes:
- Industrial Robots:
- Risk Management;
- Risk Retention;
- Risk Identification;
- Risk Evaluation;
- Risk Control Techniques;
- Risk Assumption and Risk Financing.



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#### M3. Part 8: Petroleum – Oil and Gas – Safety (1)

- Health and Safety Executive (HSE) Offshore Statistics:
  - Hydrocarbon Releases (HCRS) 5;
  - Fatal and Major Injuries to Offshore Workers;
  - Types of Accidents;
  - Over- 3-Day Injuries to Offshore Workers;
  - Dangerous Occurrences Offshore;
  - Incidence of III Health to Workers Offshore.
- Oil and Gas Industry Safety Regimes/ Institutions and Their Safety Regulation and Monitoring System:
  - American Petroleum Institute: Environmental Health & Safety;
  - The Safety Association for Canada's Upstream Oil & Gas Industry (Enform);
  - A Step Change in Safety;
  - Fire and Blast Information Group;
  - National Offshore Petroleum Safety Authority;
  - OSHA Oil and Gas Well Drilling and Servicing Work safe BC Health & Safety Centre for Petroleum;
  - Health and Safety Executive (HSE);
  - Petroleum Industry's Annual Safety Seminar.

# M3. Part 9: Petroleum – Oil and Gas – Safety (2)

- Safety Relief Valves and Rupture Discs;
- Pressure Safety Valves (PSV), Operation and Testing;
- Gas well Blowouts:
- Hydrogen Sulphide;
- Hydrogen Sulphide Principles;
- Hydrogen Sulphide (H2S) Safety for Oil and Gas;
- Rig Accidents;
- Actinia Oil Rig Blowout;

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- Blow-Out Preventers (BOP);
- New Generation of Blow-Out Preventers (BOP);
- Malfunctioning of Blow-Out Preventers (BOP);
- Dealing with Blowouts
- Analysing the BP Oil Disaster.

#### M3. Part 10: Worker Exposure to Silica During Hydraulic Fracturing

- The "Fracking" Process;
- Chemical additives in Hydraulic Fracturing;
- Silica sand as a Proppant;
- NIOSH Findings on Worker Exposures to Silica;
- Determining worker exposure levels;
- Health Hazards of Silica:
- Chronic/classic silicosis:
- Accelerated silicosis;
- Acute silicosis:
- Monitor the air to determine worker exposures to silica;
- Control dust exposures by improving existing engineering controls and safe work practices;
- Short-term work practices and procedural changes that can be implemented quickly:
  - Mandate the capping of unused fill ports (e.g., cam lock caps) on sand movers;
  - Reduce the drop height between the sand transfer belt and T-belts and blender hoppers.
  - Limit the number of workers, and the time workers must spend in areas;
  - Consider ways to perform dusty operations remotely;
  - Apply fresh water to roads and around the well site to reduce the dust;
- Practices that involve equipment changes:
  - Enclose points where dust is released;
  - Where possible, use enclosed cabs or booths;
  - Use local exhaust ventilation;

- Replacement of transfer belts with screw augers on sand movers in new designs or retrofits;
- Provision of respiratory protection when it is needed to protect workers.

## **Module 4 Business Report Writing**

#### M4 - Part 1: A Style Guide to Good Report Writing

- Report style;
- Achieving an Appropriate and Effective Style;
- Choice of Words and Phrases;
- Principles of an Effective Report Writing;
- Report Draft;
- Revising and Editing the Report;
- Collaborating Writing.

# M4 - Part 2: Report Characteristics and Organisation

- Components of an Effective Report;
- Agreeing Collaborative Objectives;
- Techniques in Ordering Report Information;
- Purpose of an Executive Summary;
- Writing an Executive Summary;
- What is an Abstract?
- Formulating an Abstract;
- Organizing Contents and Indices;
- Enhancing Business Report Presentation.



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#### M4 - Part 3: Empirical Research for Business Reports

- Surveys;
- Participant Observation;
- Conversation Analysis;
- Documentary Analysis;
- Focus Groups;
- Interviews;
- Questionnaires.

#### M4 - Part 4: Information Sources for Business Reports

- Sources of Information:
  - Secondary Sources;
  - Primary Sources;
- Reviewing Literature;
- Choosing the Methodology;
  - Qualitative Approaches;
  - Quantitative Approaches;
  - Triangulating' the Methodology.

#### M4 - Part 5: Sampling for Business Reports

- The Sampling Frame;
- Sampling Techniques:
  - Convenience or Non-random Samples;
  - Quota Sample;
  - Systematic Sample;
- Probability or Random Samples;
  - Simple Random Sample;
  - Stratified Sampling;
  - Multi-stage Sampling.

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#### M4 - Part 6: Data Elicitation for Business Reports: Interview or Questionnaire?

- Using Unstructured Questions;
- Using Open-ended Questions:
  - Designing Closed-ended Questions;
  - Avoiding Forced-choice.

#### M4 - Part 7: Data Analysis and Interpretation for Business Reports

- Instruments of Analysis:
  - Using a 'Tally System';
  - Using SPSS Package;
  - Using Excel Package;
- Data Interpretation:
  - Making Sense of The Information;
  - Identifying 'Trends' & 'Patterns' in Information;
  - Arriving at Conclusions;
  - Reporting the Findings;
  - Reporting Styles;
  - Using the Evidence.

#### M4 - Part 8: Analysing Data for Complex Business Reports

- Qualitative and Quantitative Data;
- Requirements for Accurate Data Analysis;
- Data Preparation;
- No statistical Analysis;
- Statistical Analysis;
- Levels of Data Interpretation.

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#### M4 - Part 9: Planning and Delivering an Oral Report

- Planning the Report Presentation;
- Preparing and Using Presentation Aids;
- Rehearsing the Presentation;
- Managing Question-and-Answer Sessions;
- Team Presentation;
- Ethical Considerations.

#### **M4 - Part 10: Business Report Presentation**

- Business Report Structure:
  - Planning;
  - Layout;
  - Sections;
  - Language.
- Word Processing;
- Layout and Design;
- Typography;
- Illustrations;
- Colors:
- Paper Choice;
- Covers:
- Finishing.





#### **Module 5** Petroleum - Oil and Gas - Pipeline Engineering

#### M5 - Part 1: PIPE FLOWS (1)

#### **Pipelines**

- Definition and Scope:
- Brief History of Pipelines;
- Existing Major Pipelines;
- Importance of Pipelines;
- Freight (Solids) Transport by Pipelines;
- Types of Pipelines;
- Components of Pipelines;
- Advantages of Pipelines;
- References.

#### M5 - Part 2: PIPE FLOWS (2)

#### Single-Phase Incompressible Newtonian Fluid

- Flow Regimes;
- Local Mean Velocity and Its Distribution (Velocity Profile);
- Flow Equations for One-Dimensional Analysis;
- Hydraulic and Energy Grade Lines;
- Cavitation in Pipeline Systems;
- Pipe in Series and Parallel;
- Interconnected Reservoirs;
- Pipe Network;
- Unsteady Flow in Pipe.





#### M5 - Part 3: PIPE FLOWS (3)

#### Single-Phase Compressible Flow in Pipe

- Flow Analysis for Ideal Gas;
- Flow Analysis for Real (Non-Ideal) Gas;
- Work, Energy and Power Required for Compression of Gas.

#### **Non-Newtonian Fluids**

- Classification of Non-Newtonian Fluids;
- Rheological Properties and Laws of Non-Newtonian Fluids;
- Non-Newtonian Pipe Flow: Laminar;
- Non-Newtonian Pipe Flow: Turbulent.

#### M5 - Part 4: PIPE FLOWS (4)

#### Flow of Solid/Liquid Mixture in Pipe (Slurry Pipelines)

- Flow Regimes;
- Pseudo homogenous Flow;
- Heterogeneous Flow;
- Intermediate Flow Regime;
- Practical Considerations.

#### Flow of Solid/Air Mixture Through Pipe

- Types of Pneumatic Conveying;
- Flow Characteristics;
- System Layouts;
- System Design;
- Safety Considerations;
- Analyses.

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#### Capsule Pipelines

- Introduction and History;
- Pneumatic Capsule Pipeline (PCP);
- Hydraulic Capsule Pipeline (HCP);
- Coal Log Pipeline (CLP);
- Conclusion.

#### M5 - Part 5: ENGINEERING CONSIDERATIONS (1)

#### Pipes, Fittings, Valves and Pressure Regulations

- Types of Pipes:
- Pipe Designation;
- Connections (Joints);
- Fittings;
- Valves;
- Pressure Relief Valves and Pressure Regulating Valves.

#### **Pumps and Turbines**

- Energy Conversions by Pumps and Turbines;
- Types of Pumps and Turbines;
- Pump Drivers;
- Coupling Pumps to Drivers;
- Pump Control, Operation, and Maintenance;
- Pump Selection;
- Compressors, Blowers, and Fans;
- Turbines;
- Dimensionless Parameters.





#### M5 - Part 6: ENGINEERING CONSIDERATIONS (2)

#### **Instrumentation and Pigging**

- Flow Meters;
- Sensors and Equipment;
- Pigs (Scrapers).

#### Protection of Pipelines against Abrasion, Freezing and Corrosion

- Lining, Coating, and Wrapping;
- Insulation, Tracing, Jacketing, and Electric Heating;
- Protection against Corrosion.

#### **Planning and Construction of Pipelines**

- Procedures Involved in Planning and Construction of New Pipelines;
- Measures to Allow Pipeline Expansion;
- Bending of Pipe;
- Connecting Pipes;
- Boring and Tunnelling to Install Pipe-Trenchless Technologies;
- Pipeline Construction in Marsh and Swamp;
- Offshore Construction;
- Cold-Region Construction.





#### M5 - Part 7: ENGINEERING CONSIDERATIONS (3)

#### Structural Design of Pipelines

- Load Considerations:
- Performance Analysis and Design.

#### Pipeline Operations, Monitoring, Maintenance and Rehabilitation

- General Operation of Pipeline;
- Automatic Control System;
- Integrity Monitoring and Leak Detection;
- Integrity Management Program;
- Risk-Based Management;
- Pipeline Maintenance.

#### **Module 6 Non-Destructive Testing (NDT)**

#### M6 - Part 1: Non-Destructive Testing (NDT)

- Defining Non-Destructive Testing (NDT);
- Importance and Applications of Non-Destructive Testing;
- Non-Destructive Testing Techniques;
- Advantages of Non-Destructive Testing;
- The Concept of Flaws;
- Steps in Non-Destructive Testing;
- Uses of NDT Techniques.





#### M6 - Part 2: Principles of Ultrasonic Testing

- Understanding the Frequency of Ultrasonic Waves;
- Generation of Ultrasonic Waves;
- Piezo-electric Materials for Ultrasonic Transducers;
- Kinds of Ultrasonic Transducers;
- Acoustic Impedance and the Need for Coupling Medium;
- Reflection, Refraction and Scattering of Ultrasonic Beans;
- Ultrasonic Attenuation;
- Working of Ultrasonic Flaw Detectors;
- Industrial Applications;
- Pulse-echo and Through Transmission Testing;
- Scanner Assemblies for Transmission and Pulse-echo Techniques;
- Types of Scan;
- Shear Wave Applications;
- Typical Indications;
- Test Blocks and Evaluating Flaw Size;
- Resonance Technique;
- Ultrasonic and Thickness Measurement;
- Applications of Ultrasonic in Medical Science;
- Determining Grain Size Using Ultrasonic.

#### M6 - Part 3: EDDY Current Testing

- Electrical Properties of Carbon Fibre Reinforced Plastics;
- Principle of Eddy-current Testing;
- Application of Eddy-current testing;
- Eddy-current Path;
- Eddy-current Coils;
- Eddy-effect;
- Recent Trends in Eddy-current Testing;
- High Frequency Eddy-current Test;
- Electrical Analogue of Eddy-current Test;

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- Theoretical Analysis of Eddy-current Circuit;
- Fibre Volume Fraction Measurement by Eddy-current Technique;
- Determination of Lay-up Order in Cross-plied CFRP Laminates.

#### M6 - Part 4: Magnetic Particle Flaw Detection

- Principle of Magnetic Flaw Detection;
- Types and Methods of Magnetisation;
- Magnetic Particles;
- Dry and Wet Methods of Magnetic Particle Inspection;
- Use of Fluorescent Coated Magnetic Particles;
- Industrial Applications;
- Working of a Few Commercially Available Magnetic Crack Detectors;
- Flaw Detection in Rods and Pipes;
- Flaw Detection in a Short Workpiece;
- Precautions;
- Limitations:
- Residual Magnetism;
- Need for Demagnetisation;
- Relevant and Non-relevant Indications;
- Physical Properties Determination;
- Research Techniques using Magnetic Particle Method.

#### M6 - Part 5: Liquid Penetrant Inspection

- Background;
- Oil and Chalk-Dust Method;
- Inspection Technique;
- Commercially Available Dye-penetrant Inspection Kits;
- Industrial Applications;
- Precautions and Limitations;
- Test Blocks:
- Fluorescent Penetrant Testing;

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- Detection of Through Leaks:
- Typical Indications Associated with Liquid Penetrant Testing and their Interpretations.

#### M6 - Part 6: X - Radiography

- Properties and Production of X-rays;
- Working Principle of X-Radiography;
- Methods for Detecting Modulated Intensity of X-Rays Beam;
- Applications of X-Radiographic Technique;
- Safety Aspects Related to X-Radiographic Testing.

#### M6 - Part 7: Acoustic Emission Testing and Acousto-Ultrasonic Testing

- Need for Detecting Equipment;
- Historical Background;
- Basic Principles of Acoustic Emission Testing Technique;
- Empirical Relationships Associated with Acoustic Emission Technique;
- Acoustic Remission Response from Ductile and Brittle Materials;
- Applications of Acoustic Emission Technique;
- Acoustic Emission Equipment;
- Acousto-Ultrasonic Technique.

#### M6 - Part 8: Other Non-Destructive Testing Methods

- Visual inspection and Optical Techniques:
- Pressure and Leak testing;
- Resistance Strain Gauge;
- Brittle Coatings;
- Spot Test;
- Spark Test;
- Spark Testing;

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- Sulphur Printing:
- Thermal Methods;
- Electrical Methods;
- Dynamic Testing;
- Spectrochemical Analysis;
- Thickness Measurement using Beta Gauge and Beta Backscatter Gauge.

Postgraduate Diploma, Postgraduate Certificate, and **Diploma - Postgraduate - Short Course Regulation** 

Postgraduate Certificate, Postgraduate Diploma, and Diploma -Postgraduate: Their Distinction, Credit Value and Award Title

Postgraduate Short Courses of a minimum of five days' duration, are referred to as Diploma - Postgraduate. This means that they are postgraduate credits, towards a Postgraduate Certificate and Postgraduate Diploma. Postgraduate Certificate and Postgraduate Diploma represent Programmes of Study, leading to Awards bearing their title prefixes. While we, refer to our short studies, of 5 days to five weeks, as 'Courses', those with duration of 6 weeks and more are labelled 'Programmes'. Nevertheless, in line with popular usage, we often refer to all study durations as 'Courses'. Another mark of distinction, in this regard, is that participants in a short course are referred to as 'Delegates', as opposed to the term 'Students', which is confined to those studying a Postgraduate Programme.

Courses are of varying Credit-Values; some being Single-Credit, Double-Credit, Triple-Credit, Quad-Credit, 5-Credit, etc. These short courses accumulate to Postgraduate Certificate, with a total of 180 Credit-Hours (= 6 X 5-Day Courses or 3 X 10-Day Courses), or Postgraduate Diploma, with a total of 360 Credit-Hours (= 12 X 5-Day Courses or 6 X 10-Day Courses).

Delegates studying courses of 5-7 days' duration, equivalent to 30-42 Credit-Hours (Direct Lecturer Contact), will, on successful assessment, receive the Diploma - Postgraduate Award. This represents a single credit at Postgraduate Level. While 6-day and 7-day courses also lead to a Diploma – Postgraduate, they accumulate 36 and 42 Credit Hours, respectively.

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## Postgraduate Certificate, Postgraduate Diploma, and Diploma – Postgraduate Assessment Requirement

Because of the intensive nature of our courses and programmes, assessment will largely be in-course, adopting differing formats. These assessment formats include, but not limited to, in-class tests, assignments, end of course examinations. Based on these assessments, successful candidates will receive the Diploma – Postgraduate, Postgraduate Certificate, or Postgraduate Diploma, as appropriate.

In the case of Diploma – Postgraduate, a minimum of 70% overall pass is expected. In order to receive the Awards of Postgraduate Certificate and Postgraduate Diploma, candidates must have accumulated at least the required minimum 'Credit-Hours', with a pass (of 70% and above) in at least 70% of the courses taken.

Delegates and students who fail to achieve the requirement for Postgraduate Certificate, Postgraduate Diploma, or Diploma - Postgraduate - will be given support for 2 re-submissions for each course. Those delegates who fail to achieve the assessment requirement for the Postgraduate Diploma or Diploma - Postgraduate - on 2 resubmissions, or those who elect not to receive them, will be awarded the Certificate of Attendance and Participation.

# Diploma – Postgraduate, Postgraduate Certificate, and Postgraduate Diploma Application Requirements

Applicants for Diploma – Postgraduate – Postgraduate Certificate, and Postgraduate Diploma are required to submit the following documents:

- Completed Postgraduate Application Form, including a passport sized picture affixed to the form;
- A copy of Issue and Photo (bio data) page of the applicant's current valid passport or copy of his or her Photo-embedded National Identity Card;
- Copies of credentials mentioned in the application form.

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#### **Admission and Enrolment Procedure**

- On receipt of all the above documents we will assess applicants' suitability for the Course or Programme for which they have applied;
- If they are accepted on their chosen Course or Programme, they will be notified accordingly and sent Admission Letters and Invoices;
- One week after the receipt of an applicant's payment or official payment notification, the relevant Course or Programme Tutor will contact him or her, by e-mail or telephone, welcoming him or her to HRODC Postgraduate Training Institute;
- Those intending to study in a foreign country, and require a Visa, will be sent the necessary immigration documentation, to support their application;
- Applicants will be notified of the dates, location and venue of enrolment and orientation, where appropriate.

## Modes of Study and Duration of Postgraduate Certificate and Postgraduate Diploma Programmes

There are two delivery formats for Postgraduate Certificate and Postgraduate Diploma Programmes, as follows:

- Intensive Full-time (Classroom-Based) Mode, lasting 3 months for Postgraduate Diploma, and 6 weeks for Postgraduate Certificate. These durations are based on six hours' lecturer-contact per day, five days (30 hours) per week, for Postgraduate Diploma;
- Video-Enhanced On-Line Mode. This interactive online mode lasts twenty (20)
  weeks, for Postgraduate Diploma, and ten (10) weeks for Postgraduate Certificate.
  Our calculation is based on three hours per day, six days per week.

Whichever study mode is selected, the aggregate of 360 Credit Hours must be achieved.



#### **Introducing Our Video-Enhanced Online Study Mode**

In a move away from the traditional online courses and embracing recent developments in technology-mediated distance education, HRODC Postgraduate Training Institute has introduced a Video-Enhanced Online delivery. This Online mode of delivery is revolutionary and, at the time of writing, unique to HRODC Postgraduate Training Institute.

You are taught as individuals, on a one-to-one or one-to-small-group basis. You see the tutor face to-face, for the duration of your course. You will interact with the tutor, ask and address questions; sit examinations in the presence of the tutor. It is as real as any face-to-face lecture and seminar can be. Choose from a wide range of Diploma – Postgraduate Courses and an increasing number of Specialist Postgraduate Certificate and Postgraduate Diploma Programmes. You might also accumulate Postgraduate Short Courses, via this mode of study, over a 6-year period, towards a Postgraduate Certificate or Postgraduate Diploma.

#### Key Features of Our Online Study: Video-Enhanced Online Mode

- The tutor meets the group and presents the course, via Video, in a similar way to its classroom-based counterpart;
- All participants are able to see, and interact with, each other, and with the tutor;
- They watch and discuss the various video cases and demonstrations that form an integral part of our delivery methodology;
- Their assessment is structured in the same way as it is done in a classroom setting;
- The Video-Enhanced Online mode of training usually starts on the 1<sup>st</sup> of each month, with the cut-off date being the 20<sup>th</sup> of each month, for inclusion the following month;
- Its duration is twice as long as its classroom-based counterpart. For example, a 5-day (30 Credit Hours) classroom-based course will last 10 days, in Video-Enhanced Online mode. This calculation is based on 3 hours tuition per day, adhering to the Institute's required 30 Credit-Hours;
- ➤ The cost of the Video-Enhanced Online mode is 67% of similar classroom-based courses;

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➤ For example, a 5-day classroom-based course, which costs Five Thousand Pounds, is only Three Thousand Three Hundred and Fifty Pounds (£3,350.00) in Video-Enhanced Online Mode.

# 10-Week Video-Enhanced Online Postgraduate Certificate and 20-Week Video-Enhanced Online Postgraduate Diploma

You might study an Online Postgraduate Certificate or Online Postgraduate Diploma, in 10 and 20 weeks, respectively, in the comfort of your office or homes, through HRODC Postgraduate Training Institute's Video-Enhanced Online Delivery. We will deliver the 180 Credit-Hours and 360 Credit-Hours, in line with our regulation, through 'Direct-Lecturer-Contact', within the stipulated timeframe. We aim to fit the tuition around your work, family commitment and leisure, thereby enhancing your maintenance of an effective 'work-study-life-style balance', at times convenient to you and your appointed tutor.

#### **Cumulative Postgraduate Certificate and Postgraduate Diploma Courses**

All short courses can accumulate to the required number of Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, over a six-year period from first registration and applies to both general and specialist groupings. In this regard, it is important to note that short courses vary in length, the minimum being 5 days (Diploma – Postgraduate) – equivalent to 30 Credit Hours, representing one credit, as is tabulated below.

On this basis, the definitive calculation on the Award requirement is based on the number of hours studied (aggregate credit-value), rather than merely the number of credits achieved. This approach is particularly useful when a student or delegate studies a mixture of courses of different credit-values.

For those delegates choosing the accumulative route, it is advisable that at least one or two credits be attempted each year. This will ensure that the required 180 Credit-Hours and 360 Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, respectively, are

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achieved, within the designated period. These Credit-Values, awards and their accumulation are exemplified below.

Examples of Postgraduate Course Credits: Their Value, Award Prefix & Suffix – Based on 5-Day Multiples		
Credit Value	Credit	Award Title Prefix (& Suffix)
Hours Single-Credit 30-54 Diploma - Postgraduate		
Double-Credit	60-84	Diploma – Postgraduate (Double-Credit)
Triple-Credit	90-114	Diploma – Postgraduate (Triple-Credit)
Quad-Credit	120-144	Diploma – Postgraduate (Quad-Credit)
5-Credit	150-174	Diploma – Postgraduate (5-Credit)
6-Credit	180-204	Postgraduate Certificate
7-Credit	210-234	Postgraduate Certificate (+ 1 Credit)
8-Credit	240-264	Postgraduate Certificate (+2 Credits)
9-Credit	270-294	Postgraduate Certificate (+3 Credits)
10-Credit	300-324	Postgraduate Certificate (+ 4 Credits)
11-Credit	330-354	Postgraduate Certificate (+5 Credits)
12-Credit	360	Postgraduate Diploma
360 Credit-Hours = Postgraduate Diploma		
12 X 5-Day Courses = 360 Credit-Hours = Postgraduate Diploma		
10 X 6-Day Courses = 360 Credit-Hours = Postgraduate Diploma		

# Exemplification of Accumulated Postgraduate Certificate and Postgraduate Diploma Award Titles

All Specialist Postgraduate Certificate and Postgraduate Diploma Programmes have their predetermined Award Titles. Where delegates do not follow a Specialism, for accumulation to a Postgraduate Diploma, they will normally be Awarded a General Award, without any Specialist Award Title. However, a Specialist Award will be given, where a delegate studies



at least seventy percent (70%) of his or her courses in a specialist grouping. These are exemplified below:

- 1. Postgraduate Diploma in Accounting and Finance;
- 2. Postgraduate Certificate in Accounting and Finance;
- 3. Postgraduate Certificate in Aviation Management;
- 4. Postgraduate Diploma in Aviation Management;
- Postgraduate Certificate in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;
- 6. Postgraduate Diploma in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;
- 7. Postgraduate Certificate in Business Communication;
- 8. Postgraduate Diploma in Business Communication;
- 9. Postgraduate Certificate in Corporate Governance;
- 10. Postgraduate Diploma in Corporate Governance;
- 11. Postgraduate Certificate in Costing and Budgeting;
- 12. Postgraduate Diploma in Costing and Budgeting;
- 13. Postgraduate Certificate in Client or Customer Relations;
- 14. Postgraduate Diploma in Client or Customer Relations;
- 15. Postgraduate Certificate in Engineering and Technical Skills;
- 16. Postgraduate Diploma in Engineering and Technical Skills;
- 17. Postgraduate Certificate in Events Management;
- 18. Postgraduate Diploma in Events Management;
- 19. Postgraduate Certificate in Health and Safety Management;
- 20. Postgraduate Diploma in Health and Safety Management;
- 21. Postgraduate Certificate in Health Care Management;
- 22. Postgraduate Diploma in Health Care Management;
- 23. Postgraduate Certificate in Human Resource Development;
- 24. Postgraduate Diploma in Human Resource Development;
- 25. Postgraduate Certificate in Human Resource Management;
- 26. Postgraduate Diploma in Human Resource Management;





- 27. Postgraduate Certificate in Information and Communications Technology (ICT):
- 28. Postgraduate Diploma in Information and Communications Technology
- 29. Postgraduate Certificate in Leadership Skills:
- 30. Postgraduate Diploma in Leadership Skills;
- 31. Postgraduate Certificate in Law International and National;
- 32. Postgraduate Diploma in Law International and National;
- 33. Postgraduate Certificate in Logistics and Supply Chain Management;
- 34. Postgraduate Diploma in Logistics and Supply Chain Management;
- 35. Postgraduate Certificate in Management Skills;
- 36. Postgraduate Diploma in Management Skills;
- 37. Postgraduate Certificate in Maritime Studies;
- 38. Postgraduate Diploma in Maritime Studies;
- 39. Postgraduate Certificate in Oil and Gas Operation;
- 40. Postgraduate Diploma in Oil and Gas Operation;
- 41. Postgraduate Certificate in Oil and Gas Accounting;
- 42. Postgraduate Diploma in Oil and Gas Accounting;
- 43. Postgraduate Certificate in Politics and Economic Development;
- 44. Postgraduate Diploma in Politics and Economic Development;
- 45. Postgraduate Certificate in Procurement Management;
- 46. Postgraduate Diploma in Procurement Management;
- 47. Postgraduate Certificate in Project Management;
- 48. Postgraduate Diploma in Project Management;
- 49. Postgraduate Certificate in Public Administration;
- 50. Postgraduate Diploma in Public Administration;
- 51. Postgraduate Certificate in Quality Management;
- 52. Postgraduate Diploma in Quality Management;
- 53. Postgraduate Certificate in Real Estate Management;
- 54. Postgraduate Diploma in Real Estate Management;
- 55. Postgraduate Certificate n Research Methods;



- 56. Postgraduate Diploma in Research Methods;
- 57. Postgraduate Certificate in Risk Management;
- 58. Postgraduate Diploma in Risk Management;
- 59. Postgraduate Certificate in Sales and Marketing;
- 60. Postgraduate Diploma in Sales and Marketing;
- 61. Postgraduate Certificate in Travel, Tourism and International Relations;
- 62. Postgraduate Diploma in Travel, Tourism and International Relations.

The actual courses studied will be detailed in a student or delegate's Transcript.

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# Prof. Dr. Ronald B. Crawford Director HRODC Postgraduate Training Institute

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