

# HRODC Postgraduate Training Institute



**A Postgraduate - Only Institution**



**199**

**Petroleum – Oil and Gas – Production Systems, Pipeline Engineering, Reservoir Engineering, Well Testing, Engineering and Construction Project Management, Health and Safety in the Oil and Gas Industry, and Technical Report Writing**

## **PROGRAMME**

**Leading To:**

### **POSTGRADUATE DIPLOMA IN**

- (1) Petroleum - Oil and Gas - Production Systems, Oil and Gas Reservoir Engineering, Oil and Gas Well Testing and Health and Safety**
- (2) Petroleum - Oil and Gas - Pipeline Engineering, Engineering and Construction Project Management, and Business Technical Report Writing**

### **Progressing To MSc**

- (1) Petroleum - Oil and Gas - Production Systems, Oil and Gas Reservoir Engineering, Oil and Gas Well Testing and Health and Safety**
- (2) Petroleum - Oil and Gas - Pipeline Engineering, Engineering and Construction Project Management, and Business Technical Report Writing**



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**Prof. Dr. R.B. Crawford - Director HRODC Postgraduate Training Institute**  
 PhD (London), MEd.M. (Bath), Adv. Dip. Ed. (Bristol), PGCIS (TVU), ITC (UWI), MAAM, MAOM, LESAN, MSCOS, MISGS, Visiting Prof. P.U.P.

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UKRLP Registration No. 10019585  
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and V.A.T. Registration No. 895876538

### For Whom This Programme 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;
- All others desirous of enhancing their knowledge, skills and expertise in the areas of Petroleum - Oil and Gas - Production Systems, Oil and Gas Reservoir Engineering, Oil and Gas Well Testing and Health and Safety; and, or, Petroleum - Oil and Gas - Pipeline Engineering, Engineering and Construction Project Management, and Business Technical Report Writing.

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**Programme Co-ordinator:**

**Prof. Dr. R. B. Crawford – Director HRODC Postgraduate Training Institute**

- PhD (University of London);
- MEd. M. (University of Bath);
- Adv. Dip. Ed. (University of Bristol);
- PGCIS (Thames Valley University);
- ITC (UWI);
- Member of the Standing Council of Organisational Symbolism (MSCOS);
- Member of the Asian Academy of Management (MAAM);
- Member of the International Society of Gesture Studies (MISGS);
- Member of the Academy of Management (MAOM);
- LESAN;
- Professor, HRODC Postgraduate Training Institute;
- Visiting Professor, Polytechnic University of the Philippines (PUP).

**Duration:**

**3 Months Intensive Full-Time (5 Days Per Week) or  
6 Months Full-Time (2-2.5 Days Per Week)**

**Cost: £45,000.00 Per Delegate**

**Please Note:**

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- It applies only to Individuals and Corporations based in the UK and to Non-UK Individual Residents taking courses in the UK.

**Cost includes:**

- Free Continuous snacks throughout the Event Days;
- Free Hot Lunch on Event Days;
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- Free Stationery;
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Double Postgraduate Diploma in:

- **Petroleum - Oil and Gas - Production Systems, Oil and Gas Reservoir Engineering, Oil and Gas Well Testing and Health and Safety**  
**and**
- **Petroleum - Oil and Gas - Pipeline Engineering, Engineering and Construction Project Management, and Business Technical Report Writing;**  
**or**
- Certificate of Attendance and Participation – if unsuccessful on resit.

**HRODC Postgraduate Training Institute's Complimentary Products include:**

1. HRODC Postgraduate Training Institute's **Leather Conference Folder**;
2. HRODC Postgraduate Training Institute's **Leather Conference Ring Binder/ Writing Pad**;
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6. HRODC Postgraduate Training Institute's **Metal Pen**;
7. HRODC Postgraduate Training Institute's **Polo Shirt**, at Programme Start and End.

\*\*Please see product images, as a separate file - Complimentary Products For Students and Delegates, from HRODC Postgraduate Training Institute.\*\*

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

**Location: Central London and International Locations**

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**Programme For Petroleum – Oil and Gas – Production Systems, Pipeline Engineering, Reservoir Engineering, Well Testing, Engineering and Construction Project Management, Health and Safety in the Oil and Gas Industry, and Technical Report Writing**  
**Leading to Postgraduate Diploma in**

- 1) Postgraduate Diploma in Petroleum - Oil and Gas - Production Systems, Oil and Gas Reservoir Engineering, Oil and Gas Well Testing and Health and Safety;
- 2) Postgraduate Diploma in Petroleum - Oil and Gas - Pipeline Engineering, Advanced Value Engineering for Petroleum - Oil and Gas – Engineers, and Business Technical Report Writing

Module Number	Pre-existing Course #	Module Title	Page #	Credit Value
1	199.M1	Petroleum - Oil and Gas - Production Systems	07	Quad
2	199.M2	Petroleum - Oil and Gas -Reservoir Engineering Practice	12	Quad
3	199.M3	Oil Well Testing	16	Triple
4	139	Advanced Project Management	21	Quad
5	197	Petroleum - Oil and Gas - Pipeline Engineering	28	Quad
6	171	Business Technical Report Writing	32	Triple
7	199.M7	Health and Safety in - Oil and Gas – Industry (Part 1)	35	Single
8	199.M8	Health and Safety in - Oil and Gas – Industry (Part 2)	38	Single

## Programme Contents, Concepts and Issues

### Module 1 Petroleum – Oil and Gas – Production Systems

#### M1. Part 1: The Role of Petroleum – Oil and Gas – Production Engineering

- Components of the Petroleum Production System;
- Well Productivity and Production Engineering;
- Units and Conversion.

#### M1. Part 2: Production from Under-saturated Oil Reservoirs

- Steady-State Well Performance;
- Transient Flow of Under-saturated Oil;
- Pseudosteady-State Flow;
- Wells Draining Irregular Patterns;
- Inflow Performance Relationship;
- Effects of Water Production, Relative Permeability;
- Single-Phase Oil Inflow Performance Relationships.

#### M1. Part 3: Production from Two-Phase Reservoirs

- Properties of Saturated Oil;
- Two-Phase Flow in a Reservoir;
- Oil Inflow Performance for a Two-Phase Reservoir;
- Generalized Vogel Inflow Performance;
- Fetkovich's Approximation.

## M1. Part 4: Production from Natural Gas Reservoirs

- Correlations and Useful Calculations for Natural Gases;
- Approximation of Gas Well Deliverability;
- Gas Well Deliverability for Non-Darcy Flow;
- Transient Flow of a Gas Well.

## M1. Part 5: Production from Horizontal Wells

- Steady-State Well Performance;
- Pseudosteady-State Flow;
- Inflow Performance Relationship for Horizontal Gas Wells;
- Two-Phase Correlations for Horizontal Well Inflow;
- Multilateral Well Technology.

## M1. Part 6: The Near-Wellbore Condition and Damage Characterization; Skin Effects

- Hawkins' Formula;
- Skin Components for Vertical and Inclined Wells;
- Skin from Partial Completion and Well Deviation;
- Horizontal Well Damage Skin Effect;
- Well Completion Skin Factors;
- Formation Damage Mechanisms;
- Sources of Formation Damage During Well Operations.

## M1. Part 7: Wellbore Flow Performance

- Single-Phase Flow of an Incompressible, Newtonian Fluid;
- Single-Phase Flow of a Compressible, Newtonian Fluid;
- Multiphase Flow in Wells.



## M1. Part 8: Flow in Horizontal Wellbores, Wellheads, and Gathering Systems

- Flow in Horizontal Pipes;
- Flow through Chokes;
- Surface Gathering Systems;
- Flow in Horizontal Wellbores.

## M1. Part 9: Well Deliverability

- Combination of Inflow Performance Relationship (IPR) and Vertical Flow Performance (VFP);
- IPR and VFP of Two-Phase Reservoirs;
- IPR and VFP in Gas Reservoirs.

## M1. Part 10: Forecast of Well Production

- Transient Production Rate Forecast;
- Material Balance for an Under-saturated Reservoir and Production Forecast Under Pseudosteady-State Conditions;
- The General Material Balance for Oil Reservoirs;
- Production Forecast from a Two-Phase Reservoir: Solution Gas Drive;
- Gas Material Balance and Forecast of Gas Well Performance.

## M1. Part 11: Gas Lift

- Well Construction for Gas Lift;
- Continuous Gas-Lift Design;
- Unloading Wells with Multiple Gas-Lift Valves;
- Optimization of Gas-Lift Design;
- Gas-Lift Performance Curve;
- Gas-Lift Requirements versus Time.

## M1. Part 12: Pump-Assisted Lift

- Positive-Displacement Pumps;
- Dynamic Displacement Pumps;
- Lifting Liquids in Gas Wells; Plunger Lift.

## M1. Part 13: Well Performance Evaluation

- Open-Hole Formation Evaluation;
- Cased Hole Logs;
- Transient Well Analysis.

## M1. Part 14: Matrix Acidizing: Acid/Rock Interactions

- Acid-Mineral Reaction Stoichiometry;
- Acid-Mineral Reaction Kinetics;
- Acid Transport to the Mineral Surface;
- Precipitation of Acid Reaction Products.

## M1. Part 15: Sandstone Acidizing Design

- Acid Selection;
- Acid Volume and Injection Rate;
- Fluid Placement and Diversion;
- Preflush and Postflush Design;
- Acid Additives;
- Acidizing Treatment Operations.

## M1. Part 16: Carbonate Acidizing Design

- Wormhole Formation and Growth;
- Wormhole Propagation Models;

- Matrix Acidizing Design for Carbonates;
- Acid Fracturing;
- Acidizing of Horizontal Wells.

## M1. Part 17: Hydraulic Fracturing for Well Stimulation

- Length, Conductivity, and Equivalent Skin Effect;
- Optimal Fracture Geometry for Maximizing the Fractured Well Productivity;
- Fractured Well Behaviour in Conventional Low-Permeability Reservoirs;
- The Effect of Non-Darcy Flow on Fractured Well Performance;
- Fractured Well Performance for Unconventional Tight Sand or Shale Reservoirs;
- Choke Effect for Transverse Hydraulic Fractures.

## M1. Part 18: The Design and Execution of Hydraulic Fracturing Treatments

- The Fracturing of Reservoir Rock;
- Fracture Geometry;
- The Created Fracture Geometry and Net Pressure;
- Fracturing Fluids;
- Prop pants and Fracture Conductivity;
- Fracture Diagnostics;
- Fracturing Horizontal Wells.

## M1. Part 19: Sand Management

- Sand Flow Modelling;
- Sand Management;
- Sand Exclusion;
- Completion Failure Avoidance.

## Module 2 Petroleum – Oil and Gas – Reservoir Engineering Practice

### M2. Part 1: Porosity of Reservoir Rocks

- Total Porosity and Effective Porosity;
- Sources of Porosity Data;
- Applications of Porosity Data.

### M2. Part 2: Permeability and Relative Permeability

- Sources of Permeability Data;
- Relative Permeability;
- Sources of Relative Permeability;
- Three-Phase Relative Permeability;
- Applications of Permeability and Relative Permeability.

### M2. Part 3: Reservoir Fluid Saturations

- Determination of Water Saturations;
- Determination of Reservoir Productive Intervals.

### M2. Part 4: Pressure – Volume – Temperature (PVT) Properties of Reservoir

- Gas and Gas-Condensate Properties;
- Pseudo-critical Properties of Gas Mixtures;
- Wet Gas and Gas Condensate;
- Correlations for Gas Compressibility Factor;
- Gas Formation Volume Factor (FVF);
- Gas Density;
- Gas Viscosity;
- Gas Coefficient of Isothermal Compressibility;
- Correlations for Calculation of Oil PVT Properties;



- Correlations for Calculation of Water PVT Properties.

## M2. Part 5: Reservoir Fluid Sampling and PVT Laboratory Measurements

- Overview of Reservoir Fluid Sampling;
- Reservoir Type and State;
- Well Conditioning;
- Subsurface Sampling Methods and Tools;
- Wire Line Formation Testers;
- PVT Laboratory Measurements;
- Applications of Laboratory PVT Measurements.

## M2. Part 6: Typical Reservoir Fluid Study for a Black Oil Sample

- Reservoir Fluid Summary;
- Calculated Analysis of Reservoir Fluid;
- Pressure-Volume Properties at 212°F (Constant Composition Expansion);
- Differential Liberation at 212°F;
- Gas Differentially Liberated at 212°F;
- Viscosity Data at 212°F;
- Comparison of Reservoir Oil Flash Liberation Tests.

## M2. Part 7: Typical Reservoir Fluid Study for a Gas Condensate Sample

- Summary of Reservoir Data and Surface Sampling Conditions;
- Chromatograph Analysis of Separator Gas at 1140 psig and 92°F;
- Chromatograph Analysis of Separator Liquid at 1140 psig and 92°F;
- Composition of Reservoir Fluid (Calculated);
- Measured Saturation Pressures from Stepwise Recombination at 267°F;
- Pressure-Volume Properties of Reservoir Fluid at 267°F (or CCE);
- Depletion Study at 267°F: Hydrocarbon Analyses of Produced Well stream (Mole %);
- Retrograde Condensation During Gas Depletion at 267°F.

## M2. Part 8: PVT Properties Predictions from Equations of State

- Historical Introduction to Equations of State;
- van der Waals (vdW) EOS;
- Soave-Redlich-Kwong (SRK) EOS;
- Peng-Robinson (PR) EOS;
- Phase Equilibrium of Mixtures;
- Roots from Cubic EOS;
- Volume Translation;
- Two-Phase Flash Calculation;
- Bubble Point and Dew Point Pressure Calculations;
- Characterization of Hydrocarbon Plus Fractions;
- Phase Equilibrium Predictions with Equations of State.

## M2. Part 9: The General Material Balance Equation

- Derivation of the General Material Balance Equation (GMBE);
- The GMBE for Gas Reservoirs;
- Discussion on the Application of the GMBE.

## M2. Part 10: Gas Reservoirs

- Volumetric Gas Reservoirs;
- Gas Reservoirs with Water Influx;
- Water Influx Models;
- Geo-pressured Gas Reservoirs;
- Case Histories of Two Gas Reservoirs;
- Correlations for Estimating Residual Gas Saturations for Gas Reservoirs under Water Influx;
- Dimensionless Pressure for Finite and Infinite Aquifers;
- Dimensionless Pressure for Infinite Aquifers.

## M2. Part 11: Oil Reservoirs

- Oil Reservoir Drive Mechanisms;
- Gravity Drainage Mechanism;
- Volumetric Under-saturated Oil Reservoirs;
- Under-saturated Oil Reservoirs with Water Influx;
- Volumetric Saturated Oil Reservoirs;
- Material Balance Approach for Saturated Oil Reservoirs with Water Influx;
- Case History of Manatee Reservoirs.

## M2. Part 12: Fluid Flow in Petroleum Reservoirs

- Fluid Types;
- Definition of Fluid Flow Regimes;
- Darcy Fluid Flow Equation;
- Radial Forms of the Darcy Equation;
- Derivation of the Continuity Equation in Radial Form;
- Derivation of Radial Diffusivity Equation for Slightly Compressible Fluids;
- Solutions of the Radial Diffusivity Equation for Slightly Compressible Fluids;
- Derivation of the Radial Diffusivity Equation for Compressible Fluids;
- Transformation of the Gas Diffusivity Equation with Real Gas Pseudo-Pressure Concept;
- The Superposition Principle;
- Well Productivity Index;
- Well Injectivity Index.

## Module 3 Oil Well Testing

### M3. Part 1: Oil Well Testing Familiarisation

- History of Oil Well Testing;
- Role of Oil Well Tests and Information in Petroleum Industry;
- Oil Well Test Data:
  - Acquisition;
  - Analysis;
  - Management.
- Selecting Oil Wells for Optimum Stimulation Treatment;
- Reservoir System Characterization Process;
- Scope and Objective;
- Organization;
- Unit's System and Conversations.

### M3. Part 2: Reservoir Oil Flow Analysis

- Basic Fluid Flow Equations in Oil Reservoir;
- Numerical Models and their Applications;
- Unsteady-State Pressure Distribution Calculations in Directional Well.

### M3. Part 3: Transient Well Testing Methods for Horizontal Oil Wells

- Flow Equations for Horizontal Oil Wells;
- Horizontal Oil Well Performance During Transient State;
- Transient Well Testing Techniques in Horizontal Oil Wells;
- Flow Time Equations and Solutions;
- Pressure Response Equations and Methods of Analysis;
- Horizontal Well Response and Normalized Pressure Derivative;
- Effects of Wellbore Storage.



### M3. Part 4: Pressure Drawdown Testing Techniques for Oil Wells

- Pressure-Time History for Constant-Rate Drawdown Test;
- Transient Analysis:
  - Infinite-Acting Reservoirs.
- Late Transient Analysis:
  - Bounded (Developed) Reservoirs.
- Semi-Steady-State Analysis:
  - Reservoir Limit Test.
- Two-Rate Flow Test Analysis;
- Variable-Rate Flow Tests;
- Multi-Rate Flow Test Analysis;
- Drawdown Rate Normalization Methods.

### M3. Part 5: Pressure Build-Up Analysis Techniques for Oil Wells

- Ideal Pressure Build-up Test;
- Actual Build-up Test - Infinite Reservoir;
- Pressure Build-up Test Analysis in Infinite-Acting Reservoir;
- Pressure Build-up Testing Methods for Finite (Bounded) Reservoir;
- Multiphase Build-up Test Analysis;
- After Flow Analysis Using Russel's Technique;
- Pressure Build-up Tests Preceded by Two Different Flow Rates;
- Variable-Rate Pressure Build-up Analysis;
- Rate Normalization Techniques and Procedures (Pressure Build-up Data).

### M3. Part 6: Original and Average Reservoir Pressure Estimation Methods

- Original Reservoir Pressure in Infinite Reservoirs;
- Estimating Average and Initial Reservoir Pressure;
- Estimating Constant Pressure at Aquifer in Water-Drive Reservoirs.

### M3. Part 7: Well Testing Methods for Naturally Reservoirs

- Identifications of Natural Fractures;
- Characteristics of Naturally Fractured Reservoirs;
- Typical Pressure Drawdown Behaviour Curve Shapes;
- Pressure Build-up Behaviour Characteristics;
- Well Test Interpretation:
  - Methods;
  - Uses;
  - Limitations.
- Build-up Analysis Techniques for Tight Reservoir Matrix;
- Interpretation of Interference Tests in Matrix and Fractured Reservoirs;
- Horizontal Well Pressure Behaviour Curve Shapes;
- Horizontal Well Production Forecasting:
  - Dual-Porosity Reservoir.

### M3. Part 8: Type Curve Matching Methods for Oil Wells

- Application to Conventional Tests;
- Fracture Type Curve Matching Techniques;
- Type Curves:
  - Horizontal Fractured Oil Wells.

### M3. Part 9: Flow Regime Identification and Analysis Using Special Methods

- Fracture Linear Flow Period;
- Bilinear Flow;
- Formation Linear Flow;
- Pseudo-Radial Flow;
- Type Curve Matching Methods:
  - Field Case Studies.

### M3. Part 10: Application of Pressure Derivative in Oil Well Test Analysis

- Pressure Derivative Applications in Well Test Analysis;
- Pressure Derivative Analysis Methods;
- Fractured Reservoir Systems;
- Pressure Derivative Trends for Other Common Flow Regimes.

### M3. Part 11: Massive Hydraulic-Fractured Oil Well Behaviour Analysis

- Methods of Evaluating MHF Oil Wells;
- Analyzing Infinite Flow Capacity Fractures;
- Analyzing Finite Flow Capacity Fractures;
- Estimating Formation Characteristics of Finite Conductivity Fractures;
- Pretreatment Testing of Hydraulically Fractured Candidate.

### M3. Part 12: Drill-Stem Testing Methods

- DST Equipment and Operational Procedures;
- Recommended Flow and Shut-In Time for Drill-Stem Tests;
- Troubleshooting DST Pressure Charts;
- Checking Validity and Consistency of Reporting DST Data;
- Estimation of Average Flow Rate;
- DST Analysis:
  - Methods;
  - Uses;
  - Limitations.
- Wire Line Formation Test Data Evaluation.

### M3. Part 13: Interference and Pulse Test Analysis Methods

- Interference Test Analysis Techniques;
- Analysis of Pulse Test Pressure Response;

- Vertical Pulse Test Design and Analysis Methods;
- Design and Analysis of Unequal Pulses.

### M3. Part 14: Injection Well Transient Testing Analysis

- Injectivity Test Analysis Methods;
- Pressure Fall-Off Test Analysis Methods;
- Two-Rate Injectivity Test Analysis;
- Step-Rate Injectivity Testing Technique.

### M3. Part 15: Well Testing Methods in Multi-layered Oil Reservoir Systems

- Identification of Layered Oil Reservoir Systems;
- Analyzing Pressure Behaviour in Multilayered Systems;
- Concept of Reservoir Layer Fracture Conductivity;
- Pressure Production Performance Response Equations;
- Investigating Degree of Communication and Type of Crossflow;
- Pressure Build-up Characteristics in Layered Reservoir Systems;
- Pressure Analysis Methods for Oil Well Producing Commingled Zones;
- Factors Affecting Multilayered Reservoir Performance;
- Economic Aspects of Interlayer Crossflow.

### M3. Part 16: Pressure Analysis Methods in Heterogeneous Oil Reservoir Systems

- Effect of Pressure on Rock Properties;
- Major Causes of Heterogeneities;
- Pressure Responses Near No Flow Boundaries;
- Effect of Hydraulic Diffusivity on Reservoir Behaviour;
- Simple Procedures and Guidelines to Estimate Reservoir Heterogeneity properties;
- General Approach to Estimate Fracture Trends or Heterogeneity;
- Determination of Reservoir Parameter and Fracture Orientations;



- Defining Reservoir Heterogeneity by Multiple-Well Tests;
- Method for Calculating Fracture Orientation;
- Estimating Two-Dimensional Permeability with Vertical Interference Testing;
- Application of Pulse Tests to Describe Reservoir Heterogeneity;
- Validity of Various Models and Steps Used to Obtain Reservoir Description.

## Module 4 Advanced Project Management

### Advanced Project Management: The Planning Process

#### M4. Part 1: Project Management: Overview

- 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.

## M4. 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;
  - 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.

## M4. Part 3: Project Planning Process

- 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
- Responsibility Matrix;
- Project Planning Process;
- 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.
- 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;
- Obtaining Plan Approval;
- Evaluating the Project Charter.

## Advanced Project Management: Project Monitoring, Evaluation and Control

### M4. Part 4: Project Execution

- Executing the Tasks Defined in the Project Plan;
- The Roles of the Team;
- The Pure Project Organisation;
- Matrix Management;
- Structure Selection;
- Mixed Organisational Structures and Coordination;
- Project Human Resource Management:
  - Human Resource Planning;
  - Acquire Project Team;
  - Develop Project Team.
- Team Work;
- Managing Personalities in Teams;
- Effective Team Work;
- Managing the Team:
  - Running Effective Meetings;
  - Working with Geographically Remote People and Groups.
- Management and Leadership in Project Environments:
  - The Role Of Leadership and Management in Projects;
  - Individual Skills and Attitudes;
  - Individual Motivation;
  - Structural Implications for Project Managers;
  - Cultural Implication for Project Managers;
  - Management Style;

- The Development of Management Thinking;
- The Development of New Management Paradigm.

## M4. Part 5: Project Monitoring

- Introduction to Project Monitoring;
- Monitoring Mechanisms;
- Monitoring tools;
- Participatory Monitoring;
- Steps to Participatory Monitoring Techniques;
- The Purpose of Project Monitoring and Evaluation;
- Key Principles of Project Monitoring and Evaluation;
- Critical Success Factors of Project Monitoring and Evaluation;
- Project Audit;
- Types of Project Audit;
- Contents of the Project Audit;
- A Format for a Project Audit;
- The Project Audit Life Cycle;
- Phases of Project Auditing;
- The In- Progress Project Audit;
- Post Completion Project Auditing;
- Verification Activities During Project Monitoring and Control;
- Quality Assurance and Project Monitoring;
- Project Monitoring Process Description;
- Types of Project Monitoring Activities;
- Elements of Project Monitoring;
- Post- Programme or Post- Project Monitoring.

## M4. Part 6: Project Evaluation

- Introduction to Project Evaluation Phase;
- Programme Evaluation;
- Evaluation Outputs and the Project/Programme Cycle;



- The Objectives of Programme Evaluation;
- Evaluation Steps;
- Broad Evaluation Design Strategies;
- Performance Logic Chain Assessment;
- Pre-implementation Assessment;
- Process Implementation Evaluation;
- Rapid Appraisal;
- Case Study;
- Impact Evaluation;
- Meta- Evaluation;
- Characteristics of Quality Evaluations;
- Types of Evaluation;
- Methods of Evaluation Data Collection;
- Analysis of Evaluation Data and Interpretation;
- Planning and Managing and Evaluation;
- Substantive Monitoring of the Evaluation Exercise;
- Relationship Between Monitoring and Evaluation;
- The Relationship Between Evaluation and Audit Evaluation, Audit and Research;
- When do we need Monitoring and Evaluation Results during the Programme Cycle?;
- The Role of Evaluation in Results-Based Monitoring and Evaluation;
- Key Features of Implementation;
- Monitoring Versus Results Monitoring;
- Projects, Program. And Policy Applications of Results-Based Monitoring and Evaluation (RBME);
- Some Characteristics and Expected Benefits of Introducing Results-Based Monitoring and Evaluation (RBME) Project Review;
- Monitoring and Evaluation and The Programme/Projects Cycle;
- Constraints and Challenges to Monitoring and Evaluation.

## M4. Part 7: Project Control

- Achieving Team Member Self-Control;
- Project Control System;

- Characteristics of a Project Control System;
- Designing the Right System Project Review Meetings The Three Types Of Control;
- Control of Major Project Constraints;
- Progress Tracking Using Spending Curves: Examples;
- Responding to Variances;
- Using Percentage Complete to Measure Progress;
- Scope and Change Control;
- Scope Change Control;
- Change Control Vs. Issue Management;
- Scope Management;
- Importance of Project Scope Change Management;
- When Scope is not Managed;
- Starting Up the Change Control Process;
- Managing Scope and Change Requests During Project Tools and Techniques for Integrated Change Control;
- Stage-Gate Approach to Project Control;
- Effecting Change Control;
- Tips and Techniques for Effecting Change Control;
- Change Control Sheet.

## M4. Part 8: Project Termination/Closure

- Appropriate Project Termination Activities;
- Activities in Closeout Phase;
- Reasons for Stopping in Mid-Stream;
- Early Termination Analyses;
- Modes of Project Closure/Termination;
- Project Disposition Phase;
- The Objective of Project Disposition Phase;
- Roles and Responsibilities During The Disposition Phase;
- Deliverables During The Disposition Phase;
- Final Project Report;
- Mid-Term Evaluation Report: Sample Outline;

- Annual Programme/Project Report.

## M4. Part 9: Project Communication

- Resonation;
- Introduction;
- Communication Planning;
- Communication Requirements;
- Communication Technology;
- Constraints;
- Assumptions;
- Communications Management Plan;
- Tools and Techniques for Information Distribution;
- Performance Reporting;
- Tools and Techniques for Performance Reporting;
- Information Distribution Tools and Techniques;
- Administrative Closure;
- Tools and Techniques for Administrative Closure;
- Project Reporting.

## Module 5 Petroleum – Oil and Gas – Pipeline Engineering

### M5. Part 1: PIPE FLOWS

#### 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.

## 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.

## 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.

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

- Flow Regimes;
- Pseudohomogenous 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.

## Capsule Pipelines

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

## M5. Part 2: ENGINEERING CONSIDERATIONS

### 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.

## **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.

## **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 Business Technical Report Writing

- Planning and Outlining the Report:
  - Report Planning;
  - Outlining the Report;
  - Collaborative Writing;
  - Ethical Considerations.
- Making the Report:
  - Report Draft;
  - Revising and Editing the Report;
  - Collaborative Writing;
  - Ethical Considerations.
- Writing Style and Lapses:
  - Choosing a Writing Style;
  - Frequently Occurring Writing Lapses (FOWLs);
  - Electronic Tools in Identifying FOWLs;
  - Collaborative Writing.
- Report Illustration:
  - Purposes of Visuals;
  - Determinants of Effective Visuals;
  - Selecting and Developing Visuals;

- Graphics Tools for Developing Visuals;
  - Ethical Considerations.
- Report Format:
- Formatting the Report;
  - Principles of Document Design.
- Writing Routine Reports:
- Common Routine Reports;
  - Videoconferencing and Web Conferencing;
  - Ethical Considerations.
- Writing Non-routine Reports:
- Non-routine Reports, Illustration;
  - The Role of Social Media in Business Research;
  - Ethical Considerations.
- 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.
- Research Planning:
- Planning the Research;
  - Searching the Visible and Invisible Webs;
  - The Research Proposal;
  - Ethical Considerations.
- Data Sources:
- Determining Data Sources;
  - Evaluating Primary Data Sources;
  - Sampling Data Sources;

- Kinds of Samples;
  - Secondary Data Source: Evaluation;
  - Ethical Consideration.
- Primary Data Sources:
- Acquiring Primary Data;
  - Acknowledging Data Sources;
  - Guides for Print Sources;
  - Guides for Web-Based and Other Sources;
  - In-Text Citations;
  - Endnotes and Footnotes;
  - Report Documentation Tools In Word 2010 and Online;
  - Standard Abbreviations;
  - Ethical Considerations.
- Secondary Data Sources:
- Locating Secondary Data;
  - Information Sources on the Web;
  - Evaluating Sources;
  - Extracting Data and Keeping Records;
  - Using Copyrighted Material Responsibly;
  - Ethical Considerations.
- Analyzing Data for Complex Reports:
- Qualitative and Quantitative Data;
  - Requirements for Accurate Data Analysis;
  - Data Preparation;
  - Nonstatistical Analysis;
  - Statistical Analysis;
  - Levels of Data Interpretation;
  - Team Project Management Tools;
  - Ethical Considerations.
- Writing Business Research Reports:

- Parts of the Formal Business Reports;
- Formatting Guides;
- Microsoft Word 2010 Tools for Collaborative Writers;
- Ethical Considerations.

## Module 7 Health and Safety in Petroleum – Oil and Gas – Industry (Part 1)

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

#### M7. Part 1: Health and Toxic Substances

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

#### M7. Part 2: Environmental Control and Noise

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

#### M7. Part 3: Flammable and Explosive Materials

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



- Dip Tanks;
- Explosives;
- Liquefied Petroleum Gas.

## M7. 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

## M7. 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.

## M7. Part 6: Materials Handling and Storage

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

## M7. 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.

## Module 8 Health and Safety in the Petroleum – Oil and Gas – Industry (Part 2)

### M8. Part 1: Petroleum – Oil and Gas – Safety

- 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 Ill 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 Worksafe BC Health & Safety Centre for Petroleum;
  - Health and Safety Executive (HSE);
  - Petroleum Industry's Annual Safety Seminar.
- Safety Relief Valves and Rupture Discs;
- Pressure Safety Valves (PSV), Operation and Testing;
- Gaswell Blowouts;
- Hydrogen Sulfide;
- Hydrogen Sulfide Principles;
- Hydrogen Sulfide (H<sub>2</sub>S) Safety for Oil and Gas;
- Rig Accidents;
- Actinia Oil Rig Blowout;

- 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.

## M8. Part 2: 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.

## Synopsis of Diploma – Postgraduate, Postgraduate Diploma and Postgraduate Degree Regulation

### Postgraduate Diploma and Diploma – Postgraduate: Their Distinction and Assessment Requirement

Delegates studying courses of 5-9 days' duration, equivalent to 30-54 Credit Hours (direct lecturer contact), will, on successful assessment, lead to the Diploma – Postgraduate. 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. Delegates and students who fail to gain the required level of pass, at Postgraduate Level will receive a Certificate of Attendance and Participation. The Certificate of Attendance and Participation will not count, for cumulative purpose, towards the Postgraduate Diploma.

Courses carry varying credit values; some being double credit, triple credit, quad credit and 5-credit, etc. These, therefore, accumulate to a Postgraduate Diploma. As is explained, later, in this document, a Postgraduate Diploma is awarded to students and delegates who have achieved the minimum of 360 Credit Hours, within the required level of attainment.

Credit Value and Credit Hours examples of Diploma – Postgraduate Courses are as follows:

Credit Value	Credit Hours
Single-Credit	30-36
Double-Credit	60-72
Triple-Credit	90-108
Quad-Credit	120-144



Credit Value	Credit Hours
10-Credit (X36 Credit-Hours) to 12-Credit (X30 Credit-Hours)	360

Other Credit Values are calculated proportionately.

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, or Postgraduate Diploma, as appropriate.

In the case of Diploma – Postgraduate, a minimum of 70% overall pass is expected. In order to receive the Award of Postgraduate Diploma, candidate 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 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 Diploma and Postgraduate Degree Application Requirements

Applicants for Diploma – Postgraduate, Postgraduate Diploma and Postgraduate Degrees 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.

## Admission and Enrolment Procedure

- On receipt of all the above documents we will make an assessment of the applicants' suitability for the Programme for which they have applied;
- If they are accepted on their Programme of choice, 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 Programme Tutor will contact him or her, by e-mail or telephone, welcoming him or her to HRODC Postgraduate Training Institute;
- Non-European Students will be sent immigration documentation, incorporating a Visa Support Letter. This letter will bear the applicant's photograph and passport details;
- Applicants will be notified of the dates, location and venue of enrolment and orientation;
- Non-UK students will be sent general information about 'student life' in the UK and Accommodation details.

## Modes of Study for Postgraduate Diploma Courses

There are three delivery formats for Postgraduate Diploma Courses, as follows:

1. Intensive Full-time Mode (3 months);
2. Full-time Mode (6 month);
3. Video-Enhanced On-Line Mode.

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

## Cumulative Postgraduate Diploma Courses

All short courses can accumulate to the required number of hours, for the Postgraduate Diploma, over a six-year period from the 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. Twelve 5-day short courses, representing twelve credits or the equivalent of 360 Credit Hours are, therefore, required for the Award of Postgraduate Diploma.

A six-day course (Diploma – Postgraduate) is, therefore, equivalent to 36 hours Credit Hours, representing one credit. Therefore, ten short courses, of this duration, equates to the required 360 Credit Hours, qualifying for the Award of Postgraduate Diploma. While double-credit courses last between ten and fourteen days, triple-credit courses range from fifteen to nineteen days. Similarly, quad-credit courses are from sixteen to nineteen days. 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 two credits be attempted per year. This will ensure that the required number of credit hours for the Postgraduate diploma is achieved within the six-year time frame.

### Progression to Postgraduate Degree – MA, MBA, MSc

- On the successful completion of the *Postgraduate Diploma*, students may register for the Postgraduate Degree, after their successful completion of Course #7: *Research Project: Design, Conduct & Report*.
- The students' Degree Registration Category will be dictated by the courses or modules studied at Postgraduate Diploma Level. The categories relate to Master of Business Administration (MBA); Master of Arts (MA) Master of Science (MSc); Executive Master of Business Administration (Executive MBA).

## Specialism and Degree Award Titles

The title of the degree will be indicative of the specialism studied or its generalist nature, as exemplified below:

- Master of Science - Advanced Oil and Gas Accounting: International Petroleum Accounting (MSc Advanced Oil and Gas Accounting: International Petroleum Accounting);
- Master of Science - Accounting and Finance (MSc Accounting and Finance);
- Master of Science - Real Estate Management (MSc Real Estate Management);
- Master of Science - Tourism and International Relations (MSc Tourism and International Relations);
- Master of Science – Human Resource Training and Development Management (MSc HR Training and Development Management);
- Master of Business Administration (MBA);
- Executive Master of Business Administration (Executive MBA);
- Master of Business Administration – Finance (MBA Finance);
- Master of Business Administration – Accounting (MBA Accounting);
- Master of Arts - Human Resource Management (MA Human Resource Management);
- Master of Arts - Information and Communication Management (MA Information and Communication Management).

## Dissertation: Topics, Supervision and Examination

- The knowledge and skills gained from the research methods course will enable students to formulate their research proposal.
- With the guidance of their research methods tutor, they will submit a Synopsis or Research Proposal
- On the approval of their synopsis, their Postgraduate Degree Registration will be formalised and they will, in earnest, begin their dissertation research.
- Students' choice of Dissertation area and topic must closely reflect their specialism and expected Award Title;

- The Postgraduate Degree Award Board, which will convene twice during each Academic Year, will determine whether the rules have been complied with, in this regard, and will, where necessary, change a registered Award Title, to reflect the reality of a programme choice;
- The length of the Dissertation will be between 15,000 and 20,000 words. Higher or lower limits will be accepted through special dispensation only, tabled through their Dissertation Supervisors;
- Students will each be assigned one Main Dissertation Supervisor, for formal tuition, and a Dissertation Mentor, who will provide them with informal advice, in conjunction with their Main Dissertation Supervisor;
- Each Dissertation Mentor will also mediate the relationship between the Student and his or her Dissertation Supervisor;
- Students' Viva Voce, or Oral, Examination will be conducted within 3 months of the submission of their Dissertation;
- The Dissertation Examination will be conducted by an External and an Internal Examiner;
- The External Examiner will be drawn from a recognized University and will be an Academic in the Discipline being examined, who is not otherwise associated with HRODC Postgraduate Training Institute;
- The Internal Supervisor will be an HRODC Postgraduate Training Institute's tutor, who is neither the Students' main Dissertation Supervisor or their Dissertation Mentor;
- The submission date of a Postgraduate Dissertation is expected to be within 12 calendar months of a candidate's initial registration for the Degree but can be extended, on application, to a period not exceeding 24 months;
- In the event that Students are not successful on their first attempt, they will be given the opportunity to make minor amendments to, or revise, their Dissertation, with the guidance of their Dissertation Supervisors.
- The maximum total submission and resubmission period should not exceed 36 calendar months from the date of first registration for a particular Postgraduate Degree;
- Additional details and general aspects of these regulations are contained in the document: *Postgraduate Degree - Dissertation Guidelines*.

## Terms and Conditions

HRODC Policy Terms and Conditions Are Available for viewing at:

<http://www.hrodc.com/COSTS.htm>

Or Downloaded, at:

[http://www.hrodc.com/Brochure\\_Download\\_Centre.Company\\_Brochures\\_Seminar\\_Brochures\\_Seminar\\_Schedule.htm](http://www.hrodc.com/Brochure_Download_Centre.Company_Brochures_Seminar_Brochures_Seminar_Schedule.htm)

The submission of our application form or otherwise registration by of the submission of a course booking form or e-mail booking request is an attestation of the candidate's subscription to our Policy Terms and Conditions, which are legally binding.

**Prof. Dr. R. B. Crawford - Director HRODC Postgraduate Training Institute**