

# HRODC Postgraduate Training Institute



**A Postgraduate - Only Institution**



**#231**

**Advanced Construction, Business, Project and Contract Management, and Advanced Value Engineering**

**Programme**

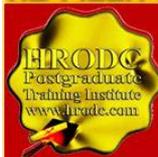
**Leading To:**

**POSTGRADUATE DIPLOMA IN**

**Advanced Construction, Business, Project and Contract Management, and Advanced Value Engineering**

**HRODC Postgraduate Training Institute**

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



**Prof. Dr. Ronald B. Crawford - Director**

PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); 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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**Websites:**  
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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;



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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

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## For Whom This Course is Designed

### This Programme is Designed For:

- Executives of Construction Companies;
- Contractors;
- Civil Engineers;
- Architects;
- Managers of Construction Companies;
- Project Managers;
- Project Team Leaders;
- Value Engineers;
- Value Analysts;
- Project Monitoring Personnel;
- Productivity Specialists;
- Functional Managers;
- Individuals with a genuine interest in Issues associated with construction management.

### Classroom-Based Duration and Cost:

**Classroom-Based Duration:** 12 Weeks (5 Days per Week)

**Classroom-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:**

- **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.**

<b>Advanced Construction Management and Advanced Value Engineering Leading to Postgraduate Diploma and MSc in Advanced Construction Management and Advanced Value Engineering</b>				
<b>Module Number</b>	<b>Pre-existing Course #</b>	<b>Module Title</b>	<b>Page #</b>	<b>Credit Value</b>
231.M1	233	Organisational Analysis and Management in the Construction Industry	6	Double Credit
231.M2	104.M1&2	Performance Management in the Construction Industry	9	Single Credit
231.M3	130.M1&2	Health and Safety Management in Industrial and Commercial Sectors	11	Double Credit
231.M4	055	Functions of Management: An Introduction	13	Single Credit
231.M5	004	Motivating Workers: Intrinsic and Extrinsic Rewards	14	Single Credit
231.M6	025	Modern Quality Systems	15	Single Credit
231.M7	234	Advanced Value Engineering and Construction Project Management	18	Quad Credit

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## Advanced Construction Management and Advanced Value Engineering, Programme

### Leading to Postgraduate a Postgraduate Diploma in Construction Management and Advanced Value Engineering

## Programme Contents, Concepts and Issues

### Module 1

## Organisational Analysis and Management in the Construction Industry

### M1. Part 1: Management in the Construction Industry: An Introduction

- Nature of the Construction Industry:
  - Physical Nature of the Product.
- The Construction Project;
- Categories of Projects:
  - Residential Construction;
  - Commercial Construction;
  - Industrial Construction;
  - Highway or Heavy Construction.
- Importance of Construction Management;
- Knowledge Required of a Construction Manager;
- The Future of Construction Industry.

### M1. Part 2: Contextualising Organisational Analysis

- Organisations: A Definition;
- Formal and Informal Organisations: A Distinction;
- Business vs. Non-business Organisations;
- Objectives Defined;

- Social Objectives;
- Business Objectives;
- Perusing Business Objectives through Social Objectives;
- Profitability of Social Objectives:
  - Direct Gains;
  - Indirect gains.
- Division of Work or Labour;
- Delegation;
- Responsibility;
- Accountability;
- Internal Accountability:
  - Upward Accountability;
  - Downward Accountability.
- External Accountability;
- Authority Demythified;
- Authority - Facet #1;
- Authority - Facet #2;
- Power.

## M1. Part 3: Exploring Delegation

- A Working Definition of Delegation;
- The Concept of 'Leasing';
- Why Delegate?;
- How Managers Benefit from Delegating;
- How Subordinates Benefits from Being the Recipient of a Delegated Task;
- Managerial Concerns about Delegating;
- Delegating Authority for Effective Task Performance;
- Delegating Responsibility with Delegated Task;
- Factors Influencing Effective Delegation;
- Delegation in a Time Management Context.



## M1. Part 4: Contextualising Delegation

- Delegation as Internal Promotion;
- Informal Management Succession Charts;
- Formal Management Succession Charts;
- Internal Selection Mechanism;
- Delegation and External Candidature;
- Authority: Facets #1 and 2 Contextualised.

## M1. Part 5: Meeting Management

- Meeting Management:
  - Creating an Effective Agenda;
  - Importance of Agenda;
  - Steps For Productive and Effective Meeting;
  - Groupthink;
  - Teamthink;
  - Reducing Time Spent on Meeting;
  - Meeting Menaces:
    - ✚ The Waffler;
    - ✚ The Turf Warrior;
    - ✚ The Assassin;
    - ✚ The Dominator;
    - ✚ The Interrupter.
  - Meeting Mismanagement.
- Trading Game Scenario.

## Module 2

### Performance Management in the Construction Industry

- Defining Performance Management;
- Is Performance Management New?;
- Performance Management in Practice;
- Performance Standards as a Prerequisite for Performance Measurement;
- Performance Measurement, in Relation to:
  - The Individual;
  - The Team;
  - The Section;
  - The Department;
  - The Division;
  - The Corporate Level.
- Performance Appraisal Practice;
- Objectives of Performance Appraisal;
- Some Problems with Traditional Appraisal;
- Some Appraisal Systems:
  - Graphic Rating Scales;
  - Ranking;
  - Paired Comparison;
  - Self Appraisal;
  - Critical Incident;
  - Management by Objectives (MBO);
  - 360 Degrees Feedback.
- Appraisal Training;
- Appraisal Forms;
- Characteristics of Appraisal Forms;
- Determining Overall Rating;
- Integration of Performance Management Systems with Human Resource and Development Activities;

- The Performance Management Cycle: Annual or Continuous?;
- Performance Management as a Strategic Process;
- Linking Performance Management with Reward System:
  - Remuneration Increments;
  - Incremental Bars;
  - Performance Related Pay;
  - Performance Bonuses.
- Linking Performance Management to the Strategic Plan;
- Strategic Planning;
- Developing Strategic Plans at the Unit Level;
- Sources of Performance Information;
- Addressing Poor Performance:
  - The Action Plan;
  - Specifics of Action Plan;
  - Action Plan Targets;
  - Support for Action Plan;
  - Action Plan Review;
  - Monitoring Progress;
  - Performance Review Meetings.
- Addressing Poor Professional Behaviour:
  - Disciplinary Processes;
  - 'Behaviours' Bringing the Organisation into Disrepute;
  - 'Gardening Leave';
  - Summary Dismissal;
  - Timely Dismissal.
- Performance Management and Employee Development:
  - Managing an Effective Induction System;
  - Systematising Continuous Professional Development (CPD);
  - Personal Developmental Plans;
  - Manager's Contribution to Personal Developmental Plans;
  - The Manager as a Coach;
  - Coaching Styles;

- Coaching Process;
- Mentoring.

## Module 3 Health and Safety at Work in Industrial and Service Sectors

### M3. Part 1: Introduction to Industrial Safety and Health Management

#### The Safety and Health Manager

- A Reasonable Objective;
- Safety versus Health;
- Role in the Corporate Structure;
- Resources at Hand.

#### Development of the Safety and Health Function

- Workers' Compensation;
- Recordkeeping;
- Accident Cause Analysis;
- Organization of Committees;
- Safety and Health Economics;
- Training;
- Job Placement Testing;
- The Smoke-Free Workplace;
- Bloodborne Pathogens;
- Workplace Violence.

#### Concepts of Hazard Avoidance

- The Enforcement Approach;
- The Psychological Approach;
- The Engineering Approach;
- The Analytical Approach;
- Hazard-Classification Scale.

### **M3. Part 2: Insuring Worker's Safety in the Industrial Setting: Federal Regulation and Safety Standards**

#### **Information Systems**

- Hazard Communication;
- International Standards;
- Environmental Protection Agency;
- Department of Homeland Security;
- Computer Information Systems.

#### **Process Safety and Disaster Preparedness**

- Process Information;
- Process Analysis;
- Operating Procedures;
- Training;
- Contractor Personnel;
- Acts of Terrorism;
- Workplace Security.

#### **Process Safety and Disaster Preparedness**

- Walking and Working Surfaces;
- Exits;
- Illumination;
- Miscellaneous Facilities;
- Sanitation.

## Module 4

### Functions of Management: An Introduction

- Profiling Managers at Different Organisational Levels;
- Planning;
- The Planning Hierarchy;
- Difference between Strategic, Tactical and Operational Plans;
- Standing Plan;
- Organising;
- Organisational Structure and Design;
- Effective Organising;
- Division of Work;
- Departmentalising;
- Establishing Vertical and Horizontal Relationships and Formal Communication Channels;
- Establishing the Mechanism Whereby the Organisational Activities Can Be Co-Ordinated;
- Desirable Level of Specialisation;
- Level of Worker Autonomy and Managerial Control;
- Levels of Managerial Control and Worker Autonomy;
- Span of Management/Control or Span of Management;
- Degree of Decision-Making and Operational Centralisation or Decentralisation
- Tall or Flat Structure;
- Co-Ordinating;
- Mutual Adjustment - With Informal Communication;
- Direct Supervision;
- Standardisation of Work Process;
- Standardisation of Input - Skills, Knowledge and Attitudes;
- Standardisation of Output;
- Controlling;
- The Management of Quality.

## Module 5

### Motivating Workers: Intrinsic and Extrinsic Rewards

- Directing or Leading;
- The Concept of Motivation;
- Theories of Motivation;
- Content Theories and Some of Their Contributors;
- Maslow's Hierarchy of Needs;
- Analysis of Maslow's Claims;
- McClelland's Studies;
- Taylor: Money and Motivation;
- Motivator-Hygiene Factor: Herzberg's Contribution;
- Process Theories;
- Equity Theory;
- Goal-Setting Theory;
- Expectancy Theory;
- Equitable Reward Systems;
- Reinforcement Theories;
- Reinforcement Theory;
- Motivation and Contingency Theory;
- Designing an Effective Motivation Strategy;
- The Collectivist vs. the Individualist Perspective of Motivation;
- Common Trends in Motivation Theories;
- Intrinsic and Extrinsic Values of Motivation;
- Motivation and Worker Behaviour;
- The Extent to Which Salary or Wages Inducement Motivate Workers;
- Performance Related Pay (PRP);
- Productivity Bonuses;
- Efficiency Gains;
- Profit Share;
- The Contingency Approach to Motivation;

- Social Differentiation in Motivation;
- Culture Differentiation in Motivation;
- Wealth as a Factor in Motivation;
- Class as an Issue in Motivation;
- Individual Expectation and Motivation;
- Individual Preferences as a Motivating Factor.

## **Module 6** **Modern Quality Systems**

- Quality: A Definition;
- Clients' Quality Consciousness;
- The Law and Development of Quality Assurance;
- Using Quality As A Tool To:
  - Create a Positive Organisational Image;
  - Lower Operational Costs;
  - Reduce or Avert Product or Service Liability Litigation.
- Modern Control Systems;
- Management Information System;
- Computerised Information Systems;
- Information Speed;
- Information Retrieval;
- Management Accounting System;
- The Import- Conversion –Export Process;
- The Import Process;
- The Conversion Process;
- The Export Process;
- Operational Control System;
- Service Operation;
- Process Scheduling;
- Loading;
- Sequencing;
- Detailed Scheduling;



- Inventory Control;
- Cost Control;
- Quality Control;
- Controlling Utilisation of Organisational Resources;
- Co-Ordinating As a Control Mechanism;
- Mutual Adjustment;
- Direct Supervision;
- Standardisation of Work Process;
- Standardisation of Input-Skills, Knowledge and Attitudes;
- Standardisation of Output;
- Organisational Structure as a Control Function;
- Communication Dissemination;
- Decision Making Involvement;
- The 'In' Inventory;
- The 'Out' Inventory;
- The 'JIT' Inventory System;
- The Kanban System;
- Establishing Quality Objectives;
- Stating Precise Objective;
- Setting Quality Objectives In Relation To Other Organisational Objectives;
- Relating Objectives to Specific Actions;
- Pinpointing Expected Results;
- Specifying When Goals Are Expected To Be Achieved;
- Distinguishing Between Strategic, Tactical and Operational Quality Objectives;
- Establishing a 'Quality-Throughput Accounting Balance';
- Continuous Improvement Programme;
- Just-In-Time (JIT) Compared With Material Requirements Planning (MRP);
- JIT Vs MRP: Component and Material Sourcing Strategy;
- The Quality Benefits of JIT vs. MRP;
- The Quality Issues Involved In JIT and MRP;
- Kaizen or Continuous Improvement;
- Modern Quality Systems;
- The British Standard Institution (BSI) as an International Quality Assessment Body;

- The Fundamental Principles of Total Quality Management (TQM);
- Implementing and Monitoring TQM;
- What is the International Organisation for Standardization (ISO);
- What '*International Standardization*' Means;
- How ISO Standards Benefit Society;
- The Hallmarks of the ISO Brand;
- ISO and World Trade;
- ISO and Developing Countries;
- How to Recognize an ISO Standard;
- The Big, Wide World of ISO Standards;
- What Makes ISO 9000 and ISO 14000 So Special;
- What Makes Conformity Assessment So Important;
- ISO9000 as A Quality Framework;
- The ISO9000 Family;
- ISO 1400: An Introduction;
- Planning, Establishing and Monitoring Quality Systems;
- The Perceptual Value of Quality Assurance;
- Establishing Quality Assurance from Quality Objectives;
- Quality Benchmarking;
- Guidelines for Achieving Quality:
  - Philip B. Crosby,
  - W. Edwards Deming,
  - Joseph M. Juran,
  - Shigeo Shingo,
  - Armand V. Eigenbaum.
- Quality and Internal and External Environmental Analysis;
- Quality and Strategic Operational Review;
- Incremental Quality Improvement;
- Identifying Areas for Quality Improvement;
- Communication for Quality Improvement;
- Researches and Development for Quality Improvement.

## Module 7 Advanced Value Engineering and Construction Project Management

### M7. Part 1: Project Participants

- Owner as Participant:
  - Public Owner;
  - Private Owner.
- Owner Representative as Participant;
- Design Professionals as Participants:
  - Architects;
  - Engineers.
- Constructor as Participant:
  - Required Constructor Knowledge.
- Specialty Contractors as Participant;
- The Trades;
- Union Vs. Merit Shops;
- Material Suppliers;
- Other Participants:
  - Financial Institution;
  - Inspectors and Testing Laboratories;
  - Public Officials;
  - Insurance and Bonding Agencies;
  - Construction Attorneys;
  - The Public.
- Characteristics of a Good Project Manager.

## M7. Part 2: Project Delivery Methods

- Project Risk and Liability;
- Source of Risk;
- Delivery Methods:
  - Design-Bid-Build;
  - Design-Build;
  - Construction Management.
- Modified Design-Build;
- Constructors as Construction Manager;
- Pure Construction Manager.

## M7. Part 3: Contract Management

- Contract Types:
  - Single Fixed Price;
  - Unit Price;
  - Cost plus Fee.

## M7. Part 4: Construction Project Management Stages

- Project Initiation;
- Feasibility Study:
  - Initiation;
  - Cost;
  - Schedule;
  - Budget;
  - Decision (Revise/Cancel, Proceed);
  - Design.
- Design Team Selection;
- Design and Value Engineering;

- 4 Stages of Project Design:
  - Programming;
  - Schematic Design;
  - Design Development;
  - Contract Documents.
- Procurement Phase:
  - Contractor Selection;
  - Bidding;
  - Awards of Contracts/Notice to Proceed;
  - Kick-off.
- Kick-off Meeting;
- Construction Phase;
- Turnover and Startup;
- Operation and Disposal.

## M7. Part 5: Advanced Value Engineering for Construction Management

### Advanced Value Engineering for Construction Management

- What is Value Engineering?;
- Value Engineering History;
- 5 Precepts of Value Engineering;
- Addressing the Problems Through Value Engineering;
- Benefits of Value Engineering;
- The Reasons for Unnecessary Costs;
- When to Apply Value Engineering;
- How is Value Engineering Done?;
- Concept of Value;
- VE Methodology and Techniques;
- Variations in Cost;
- Interface with Other Programs;
- Demonstrated Impact of VE.

### **Project Scope and Budget**

- Elements of the Project Budget;
- Prevalent Budgeting Techniques;
- Contingency Amount;
- Cost Control;
- Defining Project Scope;
- Parameters and Parameter Cost.

### **Preparation for Cost Models in Advanced Value Engineering**

- Making Models;
- Construction Cost Models;
- Other Resources;
- Types of Models.

### **Planning for Advanced Value Engineering Services**

- VE Objectives;
- Level of Effort;
- VE and Total Project Management;
- Team Selection;
- The VE Job Plan.

### **Advanced Value Analysis**

- Phase 1 – Information Phase;
- Phase 2 – Function Phase;
- Phase 3 – Creative Phase;
- Phase 4 – Analysis/Judicial Phase;
- Phase 5 – Recommendation;
- Phase 6 – Presentation and Implementation.

### **Life Cycle Costing**

- Decision Maker's Impact on LCC;
- LCC and Total Building Costs;

- LCC Terminology and Examples;
- LCC Methodology;
- Application of LCC to Buildings.

### **Integrating Value Engineering into the Construction Industry**

- Planning and Design;
- Construction;
- Maintenance and Operations (M&O).

### **Project Life Cycle, Creative Thinking and Costing**

- Planning – conceptualization, analysis, proposal, justification, agreement;
- Acting – feedback;
- Development of a Project Life Cycle, Project Brief and Proposal;
- Balancing Costs and Benefits;
- Managing the Planning Process;
- Critical Incident Analysis;
- Project Control Mechanism;
- The Value Chain: Adding Value To Processes, Products and Processes;
- Project Decision-making.

## **M7. Part 6: Construction Services during the Design Process**

- Request for Proposal (RFP) Response;
- Typical Format of a Request for Proposal:
  - Executive Summary;
  - Project Approach;
  - Scope of Work;
  - Price Breakdown;
  - Schedule;
  - Value Engineering;
  - Quality Assurance/Quality Control Plan;
  - Safety Plan;

- Contracts.
- Developing a Successful Request for Proposal;
- Preconstruction Services:
  - Architect/Engineer Selection;
  - Site Analysis;
  - Zoning Investigation;
  - System Analysis;
  - Material/Product Analysis;
  - Value Analysis;
  - Life Cycle Costing;
  - Constructability Reviews and Analysis;
  - Scope Definition;
  - Design Phasing/Coordinating;
  - Pricing;
  - Cost Management;
  - Trade Prequalification;
  - Purchasing/Scope Management;
  - 'Total' Project Scheduling;
  - Document Quality Review;
  - Design Support Assistance;
  - Project Delivery Planning;
  - Identification of 'Long Lead'
  - Sustainability Review;
  - Logistics and Phasing.
- Long Lead Items;
- Construction Work Packages.



## M7. Part 7: Bidding, Procurement and Construction

- Bidder Prequalification;
- Bidding Process;
- Bidding Strategies;
- Work Breakdown Packages;
- Analysis of Bids;
- Award of Contract;
- Subcontracts;
- Filed Office Organisation;
- Staffing;
- Procurement.

## M7. Part 8: Project Cost Estimation

- Defining 'Estimate';
- Uses of Estimate;
- Estimating Time vs. Accuracy;
- Determinants of Estimate Accuracy;
- Estimate Considerations;
- Order of Magnitude Estimates;
- Square Foot Estimate;
- Assemblies Estimate;
- Unit Price Estimate;
- The Estimating Process;
- Guidelines before Starting Estimate;
- Review Entire Scope:
  - Architect/Engineer Scope;
  - Context Scope;
  - Process Scope.
- Quantity Take-Off;

- Sources of Cost Information:
  - Current Records;
  - Subcontractor Quotations;
  - Vendor Quotations;
  - Published Cost Data;
  - Old Estimates;
  - Experience.
- Types of Costs in a Construction Estimate:
  - Direct Cost;
  - Indirect Cost.
- Material Pricing;
- Labor Pricing;
- Indices;
- Office Overhead;
- Profit.

## M7. Part 9: Project Planning and Scheduling

- Construction Schedule;
- Objectives of Schedule;
- Scheduling Uses;
- The Critical Path Method;
- Diagramming Formats;
- Establishing Sequence;
- Construction Project Manager Job Calculations;
- Definition:
  - Early Start (ES);
  - Early Finish (EF);
  - Late Start (LS);
  - Late Finish (LF).
- Total Float;
- Calculation Steps:

- Forward Pass;
  - Backward Pass;
  - Find Float Times.
- How to Plan a Project?;
- Planning a Project: Initial Idea;
- Breaking the Job Down Into Activities;
- Activity Types;
- System for Description;
- Separating the Activities;
- Level of Detail:
- General Phase List;
  - Specific Physical Element List;
  - Detailed Task List.
- Activity List Development: Tips;
- Planning the Sequence of Work;
- Priority of Relationships:
- Physical;
  - Managerial;
  - Administrative.
- Development of the Overall Logic Diagram;
- Establishing Work Sequences;
- Rules for Estimating Durations;
- Adjustment of Calculated Times;
- Calculations of Activity Durations;
- Derivation Typical Means Line;
- Durations Using the BCCD;
- Goals of the Project Calculation Procedure;
- Calculating Overall Job Duration:
- Forward Pass;
  - Backward Pass;
  - Total Float.
- Advanced Calculations;

- Communicating Schedule Information;
- Monitoring and Controlling the Project;
- The Monitoring Process;
- Monitoring Progress;
- Steps in Updating;
- Frequency of Updating;
- Updating the Individual Activities;
- Where to Find Progress Information;
- Comparing Progress to Goals;
- Analyzing Job Status;
- What to Look For In Project Reports;
- Taking Corrective Action;
- The Key Element of Communication.

## M7. Part 10: Controlling Project Cost, Time and Quality

- Basic Control Question;
- Excessive Control;
- Insufficient Control;
- Projects as Iterations;
- Control Objectives;
- Considerations of Good Reports;
- Project Participants;
- Cost Engineer Responsibilities;
- Categories of Cost:
  - Estimated;
  - Budgeted;
  - Actual;
  - Projected.
- Objectives of Cost Control;
- Cost Control System;
- Cost Control Procedures;

- Formulating Cost Codes;
- Example of Cost Coding;
- Tracking Operation;
- Cost Reports;
- Labour Cost Report;
- Project Cost Summary Report;
- Progress Evaluation and Control:
  - Units Completed;
  - Incremental Milestone;
  - Cost Ratio;
  - Other Methods.
- Cost and Schedule Performance.

## M7. Part 11: Job Site Administration

- Project Communication;
- Notice to Proceed;
- Meeting Minutes;
- Request for Information;
- Daily Reports;
- Diaries;
- Progress Photos;
- Monthly Reports;
- Electronic Communication;
- Submittals;
- Shop Drawings;
- Product Data;
- Application for Payment;
- Changes to Work;
- Ways of Proposing Changes.

## M7. Part 12: Construction Project Commissioning

- Closeout Documents:
  - Guarantees and Warranties;
  - Certification of Completion;
  - O&M Manuals;
  - Key Schedule;
  - Spare Parts;
  - As-Builts;
  - Lien Waivers.
- Closeout Decommission Field Office;
- Closeout Contracts;
- Owner Startup Programme.

### 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.

### **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.

## 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.

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## 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:

1. 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.
2. 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;
- 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 achieved, within the designated period. These Credit-Values, awards and their accumulation are exemplified below.

<b>Examples of Postgraduate Course Credits: Their Value, Award Prefix &amp; Suffix – Based on 5-Day Multiples</b>		
<b>Credit Value</b>	<b>Credit Hours</b>	<b>Award Title Prefix (&amp; Suffix)</b>
<b>Single-Credit</b>	<b>30-54</b>	<b>Diploma - Postgraduate</b>
<b>Double-Credit</b>	<b>60-84</b>	<b>Diploma – Postgraduate (Double-Credit)</b>
<b>Triple-Credit</b>	<b>90-114</b>	<b>Diploma – Postgraduate (Triple-Credit)</b>
<b>Quad-Credit</b>	<b>120-144</b>	<b>Diploma – Postgraduate (Quad-Credit)</b>
<b>5-Credit</b>	<b>150-174</b>	<b>Diploma – Postgraduate (5-Credit)</b>
<b>6-Credit</b>	<b>180-204</b>	<b>Postgraduate Certificate</b>
<b>7-Credit</b>	<b>210-234</b>	<b>Postgraduate Certificate (+ 1 Credit)</b>

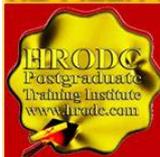
<b>Examples of Postgraduate Course Credits: Their Value, Award Prefix &amp; Suffix – Based on 5-Day Multiples</b>		
<b>Credit Value</b>	<b>Credit Hours</b>	<b>Award Title Prefix (&amp; Suffix)</b>
<b>8-Credit</b>	<b>240-264</b>	<b>Postgraduate Certificate (+2 Credits)</b>
<b>9-Credit</b>	<b>270-294</b>	<b>Postgraduate Certificate (+3 Credits)</b>
<b>10-Credit</b>	<b>300-324</b>	<b>Postgraduate Certificate (+ 4 Credits)</b>
<b>11-Credit</b>	<b>330-354</b>	<b>Postgraduate Certificate (+5 Credits)</b>
<b>12-Credit</b>	<b>360</b>	<b>Postgraduate Diploma</b>
<b>360 Credit-Hours = Postgraduate Diploma</b>		
<b>12 X 5-Day Courses = 360 Credit-Hours = Postgraduate Diploma</b>		
<b>10 X 6-Day Courses = 360 Credit-Hours = Postgraduate Diploma</b>		

### **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;**
- 5. 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;**

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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 (ICT);**
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 in 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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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.

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**Director**  
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