

HRODC Postgraduate Training Institute



A Postgraduate - Only Institution



#235

**Database Querying, Administration and
Warehousing on Microsoft SQL Server 2012:
Microsoft Certified Solutions Expert (MCSE) Data
Platform Compliant**

Postgraduate Short Course

Leading To:

DIPLOMA - POSTGRADUATE IN

**Database Querying, Administration and
Warehousing on Microsoft SQL Server 2012, 5-
Credit, 150 Credit-Hours**

Accumulating to A

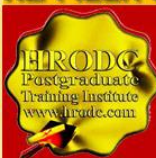
**Postgraduate Certificate,
With 30 Additional Credit-Hours, or A**

POSTGRADUATE DIPLOMA

With 210 Additional Credit-Hours

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HRODC Postgraduate Training Institute
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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/>.

Course 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);



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- Diploma in Doctoral Research Supervision, (University of Wolverhampton);
- Teaching Certificate;
- 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;

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- Programme Leader;
- Personal Tutor

For Whom This Course is Designed

This Course is Designed For:

- Database Administrators;
- SQL Server Administrators;
- General Server Administrators;
- Computer Encoders;
- Microsoft SQL Server 2012 Administrators;
- Microsoft SQL Server 2012 Warehousing Administrators;
- Users of Transact SQL (T_SQL);
- SQL Server Installers;
- Microsoft SQL Server 2012 Installers;
- Microsoft SQL Server 2012 Professionals;
- SQL Server Management Studio Administrators;
- Information Systems Professionals;
- Information Systems Consultants;
- Microsoft Certified Database Administrators (MCDBA) – SQL Server 2000 Databases – who wish to update to Microsoft SQL Server 2012;
- Those who have an interest in relational database and SQL Servers;
- All others who aspire to administer, configure and manage Microsoft SQL Server 2012.


Classroom-Based Duration and Cost:	
Classroom-Based Duration:	25 Days
Classroom-Based Cost:	£25,000.00 Per Delegate
Online (Video-Enhanced) Duration and Cost	
Online Duration:	50 Days @ 3 Hours Per Day
Online Cost:	£16,750.00 Per Delegate

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Classroom-Based Course and 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;

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8. Other International Locations, on request.

Database Querying, Administration and Warehousing, on Microsoft SQL Server 2012: Microsoft Certified Solutions Expert (MCSE) Data Platform Compliant Course

Leading to Diploma – Postgraduate – in Database Querying, Administration and Warehousing, on Microsoft SQL Server 2012, 5-Credit, 150 Credit-Hours, Accumulating to a Postgraduate Certificate, with 30 Additional Credit-Hours, or a Postgraduate Diploma, with 210 Additional Credit-Hours

Course Objectives


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

- Demonstrate their ability to analyse collected performance data;
- Illustrate how they authorise users to access particular objects;
- Indicate how they would provide authorisation for users to execute a code;
- Demonstrate their knowledge of database maintenance and how to automate the process;
- Demonstrate an automation of SQL Server Management;
- Back up databases and transaction logs.
- Capture activity using SQL Server Profiler and Extended Events Profiler.
- Capture and manage performance data.
- Conduct pre-installation stress testing for SQL Server.
- Configure credentials.
- Configure database mail.
- Configure operators, alerts and notifications.
- Configure permissions at the schema level;
- Configure Proxy accounts.
- Configure SQL Server Services.
- Construct and execute dynamic SQL with EXEC and sp_executesql.

- Create and manage transactions with transaction control language statements.
- Create dynamic packages that include variables and parameters.
- Create simple inline table-valued functions and write queries against them.
- Create simple stored procedures which encapsulate a SELECT statement.
- Create simple views and write queries against them.
- Create user-defined database roles.
- Debug an SSIS package.
- Declare and assign variables and synonyms.
- Deploy and upgrade Data-Tier Applications.
- Deploy and upgrade Data-Tier Applications.
- Describe batches and how they are handled by SQL Server.
- Describe batches and how they are handled by SQL Server.
- Describe BI and common BI scenarios.
- Describe cloud data scenarios.
- Describe components of well-performing queries.
- Describe how custom components can be used to extend SSIS.
- Describe how Data Quality Services can help you manage data quality.
- Describe how logins are authorized to access databases.
- Describe how multiple tables may be queried in a SELECT statement using joins.
- Describe how SQL Server authenticates connections.
- Describe how you can include custom scripts in an SSIS package.
- Describe key Master Data Services concepts.
- Describe numeric data types, type precedence and type conversions.
- Describe options for virtualizing SQL Server.
- Describe options for virtualizing SQL Server.
- Describe SQL Azure.
- Describe SQL Server's behavior when errors occur in T-SQL code.
- Describe SSIS deployment.
- Describe the architecture and editions of SQL Server 2012;
- Describe the basic features of SQL Azure;
- Describe the benefits to using window functions;

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- Describe the considerations for implementing an incremental extract, transform, and load (ETL) solution.
- Describe the critical concepts surrounding backup strategies.
- Describe the elements of T-SQL and their role in writing queries;
- Describe the key considerations for a data warehousing project.
- Describe the key elements of a data warehousing solution.
- Describe the key features of SSIS.
- Describe the language elements of T-SQL used for simple programming tasks.
- Describe the logical order of operations in SELECT statements;
- Describe the main hardware considerations for building a data warehouse.
- Describe the options for auditing data access in SQL Server.
- Describe the role and structure of SQL Server databases.
- Describe the role of indexes and statistics in SQL Server
- Describe the SQL Server architecture.
- Describe the SQL Server Platform.
- Describe the use of predicate logic in SQL Server;
- Describe the use of sets in SQL Server;
- Describe the uses of queries which are nested within other queries.
- Describe the Windows Azure Marketplace.
- Describe transactions and the differences between batches and transactions.
- Display and interpret basic query performance data
- Display and interpret basic query plans
- Eliminate duplicates using the DISTINCT clause;
- Enforce consistency with transactions and checkpoints.
- Ensure database integrity.
- Execute system stored procedures to return system information.
- Explain how to deploy SSIS projects using the project deployment model.
- Explain how to use reference architectures and data warehouse appliances to create a data warehouse.
- Explain SQL Server Agent security.
- Explain SQL Server troubleshooting methodology.
- Explain the key features of SQL Server Analysis Services.

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- Explain the key features of SQL Server Reporting Services.
- Explain the requirements for authorization across servers.
- Explain the transaction logging capabilities within the SQL Server database engine.
- Explore source data for an ETL solution.
- Filter data in the SELECT clause with TOP.
- Filter data with OFFSET and FETCH.
- Filter data with predicates in the WHERE clause.
- Handle errors in an SSIS package.
- Implement a data flow using SSIS.
- Implement a logical design for a data warehouse.
- Implement a Master Data Services model.
- Implement a physical design for a data warehouse.
- Implement control flow with tasks and precedence constraints.
- Implement logging for an SSIS package.
- Implement SQL Server Audit.
- Implement structured exception handling in T-SQL.
- Import and export table data.
- Improve performance with the Database Engine Tuning Advisor.
- Insert data in bulk and optimize the bulk insert process.
- Install SQL Server.
- Maintain indexes.
- Manage database backups.
- Manage SQL Server Agent jobs.
- Manage SQL Server Audit.
- Monitor current activity.
- Monitor SQL Server errors.
- Move database files within servers and between servers.
- Pass parameters to procedures.
- Plan a SQL Server backup strategy.
- Plan for server resource requirements.
- Plan SSIS package execution.
- Prepare to install SQL Server.

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- Provision a SQL Azure server and configure its security;
- Raise user-defined errors and pass system errors in T-SQL code.
- Resolve concurrency issues.
- Resolve login and connectivity issues.
- Resolve service-related issues.
- Restore databases.
- Restore system databases and individual files.
- Restrict window functions to rows defined in an OVER clause, including partitions and frames;
- Return information about errors from system objects.
- Return results by executing stored procedures.
- Sort data using ORDER BY.
- Transfer data to and from SQL Server.
- Troubleshoot and resolve SQL Server administrative issues
- Understand the restore process.
- Upgrade and automate the installation of SQL Server.
- Use column and table aliases;
- Use containers in a package control flow.
- Use conversion functions.
- Use Data Quality Services to cleanse your data.
- Use Data Quality Services to match data.
- Use functions that work with NULL.
- Use IF and WHILE blocks to control program flow.
- Use logical functions.
- Use multiple techniques to extract new and modified data from source systems.
- Use multiple techniques to insert new and modified data into a data warehouse.
- Use SET XACT_ABORT to define SQL Server's handling of transactions outside TRY / CATCH blocks.
- Use the EXISTS predicate to efficiently check for the existence of rows in a subquery.
- Use the GROUP BY clause to arrange rows into groups.
- Use the HAVING clause to filter out groups based on a search condition.
- Use the Master Data Services Add-in for Excel to view and modify a model.

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- Work with files and filegroups.
- Work with fixed database roles.
- Work with more advanced backup options.
- Work with multiple servers.
- Work with multiple servers.
- Work with Point-in-time Recovery.
- Work with server roles.
- Work with SQL Server Agent.
- Work with SQL Server Management Studio;
- Work with SQL Server Tools.
- Work with tracing options.
- Write correlated subqueries which return scalar or multi-valued results.
- Write queries that retrieve system metadata and state information using system dynamic management views and functions.
- Write queries that retrieve system metadata using system views and functions.
- Write queries that use inner joins.
- Write queries that use outer joins.
- Write queries that use self-joins and cross joins.
- Write queries using character data types.
- Write queries using date and time data types;
- Write queries which combine data using the UNION operator
- Write queries which compare sets using the INTERSECT and EXCEPT operators
- Write queries which manipulate rows in a table by using APPLY with the results of a derived table or function;
- Write queries which pivot and unpivot result sets
- Write queries which specify multiple groupings with grouping sets
- Write queries which summarize data using built-in aggregate functions.
- Demonstrate their competence in writing queries which use common table expressions.
- Write queries which use derived tables.
- Write queries which use window functions to operate on a window of rows and return ranking, aggregation and offset comparison results.

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- Write self-contained subqueries which return scalar or multi-valued results.
- Write simple CASE expressions;
- Write simple SELECT statements.

Course Contents, Concepts and Issues

Module 1 (6 Days): Relational Database and Windows Environment: A Targeted Review

M1. Part 1: Reviewing Relational Database

- Database Systems: An Overview;
- Relational Database Systems;
- Understanding User Interfaces;
- Variety of User Interfaces;
- Physical Data Independence;
- Logical Data Independence;
- Physical Data Independence;
- Query Optimization;
- Data Integrity;
- SQL As a Relational Database Language;
- Database Design;
- Normal Forms;
- Normalization;
- Entity-Relationship Model;
- Syntax Convention;
- Working with Sample Databases;
- Concurrency Control;
- Backup and Recovery;
- Database Security.

M1. Part 2: The Windows Environment


- Reviewing Window Functions;
- Set-Based vs. Iterative/Cursor Programming;
- Glimpse of Solutions Using Window Functions;
- Partitioning;
- Ordering;
- Framing;
- Query Elements Supporting Window Functions;
- Logical Query Processing;
- Clauses Supporting Window;
- Circumventing the Limitations;
- Window Aggregate Functions Described;
- Supported Windowing Elements;
- Distinct Aggregates;
- Nested Aggregates;
- Supporting Ranking Functions;
- RANK and DENSE_RANK;
- Distribution Functions:
- Rank Distribution Functions
- Inverse Distribution Functions;
- Offset Functions: Supported Windowing Elements:
 - LAG and LEAD;
 - Backward Scans;
 - Columnstore Indexes;
 - Ranking Functions;
 - ROW_NUMBER:
 - NTILE;
 - RANK and DENSE_RANK.
- Improved Parallelism with APPLY;
- Aggregate and Offset Functions;
- Without Ordering and Framing;

- With Ordering and Framing;
- Running Totals;
- Set-Based Solution Using Window Functions;
- Set-Based Solutions Using Subqueries or Joins;
- Cursor-Based Solution;
- CLR-Based Solution;
- Solutions Based on Window Functions;
- Nested Iterations;
- Multirow UPDATE with Variable;
- Performance Benchmark;
- Max Concurrent Intervals;
- Traditional Set-Based Solution;
- Performance Benchmark
- Packing Intervals:
 - Traditional Set-Based Solution;
 - Solutions Based on Window Functions.
- Gaps and Islands:
 - Gaps;
 - Islands.
- Median;
- Conditional Aggregate;
- Sorting Hierarchies.

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Module 2 (7 Days): Structured Query Language (SQL) For 2012 Server

M2. Part 1: Introduction to Microsoft SQL Server 2012

- Introducing Microsoft SQL Server 2012;
- Spatial Data Features in SQL Server 2012;
- Getting Started with SQL Server Management Studio;
- Working with SQL Server 2012 Tools;
- Working with SQL Server Management Studio;
- Creating and Organizing T-SQL scripts;
- Using Books Online;
- SQL Server Editions.

M2. Part 2: Query Optimizer

- Phases of Query Processing;
- How Query Optimization Works:
 - Query Analysis;
 - Index Selection;
 - Join Order Selection;
 - Join Processing Techniques;
 - Plan Caching.
- Tools for Editing the Optimizer Strategy:
 - SET Statement;
 - Management Studio and Graphical Execution Plans;
 - Examples of Execution Plans;
 - Dynamic Management Views and Query Optimizer.

M2. Part 3: Getting Started with SQL Azure

- Overview of SQL Azure;
- Working with SQL Azure;
- Production to SQL Azure.

M2. Part 4: SOL Azure Architecture

- Client Layer;
- Services Layer;
- Platform Layer;
- Infrastructure Layer.

M2. Part 5: Configuring SQL Azure

- Server and Database Provisioning;
- Throttling and Load Balancing;
- Configuring SQL Azure Firewalls;
- Connecting to SQL Azure.

M2. Part 6: Administering and Working with SQL Azure

- Creating Logins and Users;
- Assigning Access Rights;
- Backups with SQL Azure;
- Object Explorer for SQL Azure;
- What's Missing in SQL Azure.

M2. Part 7: T-SQL Functions and Querying

- Introducing T-SQL;
- Understanding Sets;
- Understanding Predicate Logic;
- Understanding the Logical Order of Operations in SELECT statements;
- Transact-SQL Functions:
 - Aggregate Functions;
 - Scalar Functions;
 - Scalar Operators;
 - Global Variables.
- Transact-SQL and Indices:
 - Creating Indices;
 - Obtaining Index Fragmentation Information;
 - Editing Index Information;
 - Altering Indices;
 - Removing and Renaming Indices.
- Creating and Using Indices:
 - Indices and Conditions in the WHERE Clause;
 - Indices and the Join Operator;
 - Covering Index.
- Special Types of Indices:
 - Virtual Computed Columns;
 - Persistent Computed Columns.

M2. Part 8: Salient Transact-SQL Querying

- Executing Basic SELECT Statements;
- Executing queries which filter data using predicates;
- Executing queries which sort data using ORDER BY;
- Indexing Full-Text Data Using Transact-SQL.

M2. Part 9: T-SQL Solutions Using Window Functions

- Virtual Auxiliary Table of Numbers;
- Sequences of Date and Time Values;
- Sequences of Keys;
- Update a Column with Unique Values;
- Applying a Range of Sequence Values;
- Paging;
- Removing Duplicates;
- Pivoting.

M2. Part 10: Writing SELECT Queries

- Writing Simple SELECT Statements;
- Eliminating Duplicates with DISTINCT;
- Using Column and Table Aliases;
- Writing Simple CASE Expressions.

M2. Part 11: SELECT Statement, Clauses and Functions

- Write simple SELECT Statements;
- Eliminate Duplicates Using Distinct;
- Use Table and Column Aliases;
- Using Simple CASE Expression:
 - WHERE Clause;
 - GROUP BY Clause;
 - Aggregate Functions;
 - HAVING Clause;
 - ORDER BY Clause;
 - SELECT Statement and IDENTITY Property;
 - CREATE SEQUENCE Statement;
 - Set Operators;

- CASE Expressions.
- Subqueries:
 - Subqueries and Comparison Operators;
 - Subqueries and the IN Operator;
 - Subqueries and ANY and ALL Operators.

M2. Part 12: Querying Multiple Tables

- Understanding Joins;
- Querying with Inner Joins;
- Querying with Outer Joins;
- Querying with Cross Joins and Self Joins.

M2. Part 13: Querying Multiple Tables

- Writing Queries That Use Inner Joins;
- Writing Queries That Use Multiple-Table Inner Join;
- Writing Queries That Use Self Joins;
- Writing Queries That Use Outer Joins;
- Writing Queries That Use Cross Join.

M2. Part 14: Sorting and Filtering Data

- Sorting Data;
- Filtering Data with a WHERE Clause;
- Filtering with the TOP and OFFSET-FETCH Options;
- Working with Unknown and Missing Values;
- Writing Queries That Filter Data Using a WHERE Clause;
- Writing Queries That Filter Data Using an ORDER BY Clause;
- Writing Queries That Filter Data Using the TOP Option;
- Writing Queries That Filter Data Using the OFFSET-FETCH Clause.

M2. Part 15: Working with SQL Server 2012 Data Types

- Introducing SQL Server 2012 Data Types;
- Working with Character Data;
- Working with Date and Time Data;
- Writing Queries That Return Date and Time Data;
- Writing Queries That Use Date and Time Functions;
- Writing Queries That Return Character Data;
- Writing Queries That Use Character Functions.

M2. Part 16: Using Built-In Functions

- Writing Queries with Built-In Functions;
- Using Conversion Functions;
- Using Logical Functions;
- Using Functions to Work with NULL;
- Write queries which use conversion functions;
- Write queries which use logical functions;
- Write queries which test for nullability;
- Write queries with built-in scalar functions.

M2. Part 17: Grouping and Aggregating Data

- Using Aggregate Functions;
- Using the GROUP BY Clause;
- Filtering Groups with HAVING;
- Write queries which use the GROUP BY clause;
- Write queries which use aggregate functions;
- Write queries which use distinct aggregate functions;
- Write queries which filter groups with the HAVING clause.

M2. Part 18: Using Subqueries

- Writing Self-Contained Subqueries;
- Writing Correlated Subqueries;
- Using the EXISTS Predicate with Subqueries;
- Write queries which use self-contained subqueries;
- Write queries which use scalar and multi-result subqueries;
- Write queries which use correlated subqueries and EXISTS predicate.

M2. Part 19: Using Table Expressions

- Using Derived Tables;
- Using Common Table Expressions;
- Using Views;
- Using Inline Table-Valued Functions;
- Write Queries Which Use Views;
- Write Queries Which Use Derived Tables;
- Write Queries Which Use Common Table Expressions;
- Write Queries Which Use Inline Table-Valued Functions.

M2. Part 20: Using Set Operators

- Writing Queries with the UNION Operator;
- Using EXCEPT and INTERSECT;
- Using APPLY;
- Write queries which use UNION set operators and UNION ALL multi-set operators;
- Write queries which use CROSS APPLY and OUTER APPLY operators;
- Write queries which use EXCEPT and INTERSECT operators.

M2. Part 21: Using Window Ranking, Offset and Aggregate Functions

- T-SQL functions such as ROW_NUMBER, RANK, DENSE_RANK, NTILE, LAG, LEAD, FIRST_VALUE and LAST_VALUE to perform calculations against a set, or window;
- Creating Windows with OVER;
- Exploring Window Functions;
- Write queries which use ranking functions;
- Write queries which use offset functions;
- Write queries which use window aggregate functions.

M2. Part 22: Pivoting and Grouping Sets

- Writing Queries with PIVOT and UNPIVOT;
- Working with Grouping Sets;
- Write queries which use the PIVOT operator;
- Write queries which use the UNPIVOT operator;
- Write queries which use the GROUPING SETS subclause.

M2. Part 23: Querying SQL Server Metadata

- Querying System Catalog Views and Functions;
- Executing System Stored Procedures;
- Querying Dynamic Management Objects;
- Querying System Catalog Views;
- Querying System Functions;
- Querying System Dynamic Management Views.

M2. Part 24: Executing Stored Procedures

- Querying Data with Stored Procedures;
- Passing Parameters to Stored Procedures;
- Creating Simple Stored Procedures;
- Working with Dynamic SQL;
- Use the EXECUTE statement to invoke stored procedures;
- Pass parameters to stored procedures;
- Execute system stored procedures;
- Programming with T-SQL;
- T-SQL Programming Elements;
- Controlling Program Flow;
- Declaring Variables and Delimiting Batches;
- Using Control-of-Flow Elements;
- Generating Dynamic SQL;
- Using Synonyms.

M2. Part 25: Implementing Error Handling

- Using TRY / CATCH Blocks;
- Working with Error Information;
- Redirecting Errors with TRY / CATCH;
- Using THROW to Pass an Error Message Back to a Client.

M2. Part 26: Implementing Transactions

- Transactions and the Database Engine;
- Controlling Transactions;
- Controlling transactions with BEGIN, COMMIT, and ROLLBACK;
- Adding error handling to a CATCH block.

M2. Part 27: Improving Query Performance

- Factors in Query Performance;
- Displaying Query Performance Data;
- Viewing Query Execution Plans;
- Viewing Index Usage and Using SET STATISTICS Statements.

Module 3: Administering Microsoft SQL Server 2012 Databases

M3. Part 1: Introduction to SQL Server 2012 and its Toolset

- Introduction to the SQL Server Platform;
- Working with SQL Server Tools;
- Configuring SQL Server Services;
- Verifying SQL Server Component Installation;
- Altering Service Accounts for New Instance;
- Enabling Named Pipes Protocol for Both Instances;
- Creating an Alias for AdvDev;
- Ensuring SQL Browser is Disabled and Configure a Fixed TCP/IP Port (Only if time permits).

M3. Part 2: Preparing Systems for SQL Server 2012

- Overview of SQL Server Architecture;
- Planning Server Resource Requirements;
- Pre-installation Testing for SQL Server;
- Adjust memory configuration;
- Pre-installation Stress Testing;
- Check Specific I/O Operations.

M3. Part 3: Installing and Configuring SQL Server 2012

- Preparing to Install SQL Server;
- Installing SQL Server;
- Upgrading and Automating Installation;
- Review installation requirements;
- Install the SQL Server instance;
- SQL Server Management Studio;
- SQL Components;
- Data Definition Language Queries;
- New Installs;
- Side-by-Side Installs;
- Upgrades;
- Unattended Installs;
- Attended Installations.

M3. Part 4: Installing Analysis Services

- Multidimensional and Data Mining Mode (UDM Mode);
- Tabular Mode;
- Installing PowerPivot for SharePoint;
- Burning in the System and Post-Install Configuration;
- Configuring SQL Server Settings for Performance;
- Configuring SQL Server Setting for Security;
- Best Practices Analyzer (BPA);
- Modification of a Table's Contents;
- Perform Post-installation Setup and Checks;
- Configure Server Memory.

M3. Part 5: Working with Databases

- Overview of SQL Server Databases;
- Working with Files and Filegroups;
- Moving Database Files;
- Adjust tempdb configuration;
- Create the RateTracking database;
- Attach the OldProspects database;
- Add multiple files to tempdb.

M3. Part 6: Understanding SQL Server 2012 Recovery Models

- Backup Strategies;
- Understanding SQL Server Transaction Logging;
- Planning a SQL Server Backup Strategy;
- Plan a backup strategy;
- Configure Recovery Models;
- Review recovery models and strategy.

M3. Part 7: Backup of SQL Server 2012 Databases

- Backing up Databases and Transaction Logs;
- Managing Database Backups;
- Working with Backup Options.

M3. Part 8: Backup of SQL Server Databases

- Investigate backup compression;
- Transaction log backup;
- Differential backup;
- Copy-only backup;
- Partial backup.

M3. Part 9: Restoring SQL Server 2012 Databases

- Understanding the Restore Process;
- Restoring Databases;
- Working with Point-in-time recovery;
- Restoring System Databases and Individual Files;
- Determine a restore strategy;
- Restore the database;
- Using STANDBY mode.

M3. Part 10: Importing and Exporting Data

- Transferring Data To/From SQL Server;
- Importing and Exporting Table Data;
- Inserting Data in Bulk;
- Import the Excel spreadsheet;
- Import the CSV file;
- Create and test an extraction package;
- Compare loading performance.

M3. Part 11: Authenticating and Authorizing Users

- Authenticating Connections to SQL Server;
- Authorizing Logins to Access Databases;
- Authorization Across Servers;
- Create Logins;
- Correct an Application Login Issue;
- Create Database Users;
- Correct Access to Restored.

M3. Part 12: Assigning Server and Database Roles

- Working with Server Roles;
- Working with Fixed Database Roles;
- Creating User-defined Database Roles;
- Assign Server Roles;
- Assign Fixed Database Roles;
- Create and Assign User-defined Database Roles;
- Check Role Assignments;
- Authorizing User Access to Objects;
- Authorizing Users to Execute Code;
- Configuring Permissions at the Schema Level;
- Assign Schema-level Permissions;
- Assign Object-level Permissions;
- Test Permissions.

M3. Part 13: Auditing SQL Server Environments

- Options for Auditing Data Access in SQL;
- Implementing SQL Server Audit;
- Managing SQL Server Audit;
- Determine audit configuration and create audit;
- Create server audit specifications;
- Create database audit specifications;
- Test audit functionality.

M3. Part 14: Automating SQL Server 2012 Management

- Automating SQL Server Management;
- Working with SQL Server Agent;
- Managing SQL Server Agent Jobs;
- Create a Data Extraction Job;

- Schedule the Data Extraction Job;
- Troubleshoot a Failing Job.

M3. Part 15: Configuring Security for SQL Server Agent

- Understanding SQL Server Agent Security;
- Configuring Credentials;
- Configuring Proxy Accounts;
- Troubleshoot job execution failure;
- Resolve the security issue;
- Perform further troubleshooting.

M3. Part 16: Monitoring SQL Server 2012, with Alerts and Notifications

- Configuration of Database Mail;
- Monitoring SQL Server Errors;
- Configuring Operators, Alerts and Notifications;
- Configure Database Mail;
- Implement Notifications;
- Implement Alerts.

M3. Part 17: Performing Ongoing Database Maintenance

- Ensuring Database Integrity;
- Maintaining Indexes;
- Automating Routine Database Maintenance;
- Check database integrity using DBCC CHECKDB;
- Correct index fragmentation;
- Create a database maintenance plan;
- Investigate table lock performance.

M3. Part 18: Tracing Access to SQL Server 2012

- Capturing Activity using SQL Server Profiler;
- Improving Performance with the Database Engine Tuning Advisor;
- Working with Tracing Options;
- Capture a trace using SQL Server Profiler;
- Analyze a trace using Database Engine Tuning Advisor;
- Configure SQL Trace.

M3. Part 19: Monitoring SQL Server 2012

- Monitoring Activity;
- Capturing and Managing Performance Data;
- Analyzing Collected Performance Data;
- Investigating DMVs;
- Configure Management Data Warehouse;
- Configure Instances for Data Collection;
- Work with Data Collector Reports.

M3. Part 20: Managing Multiple Servers

- Working with Multiple Servers;
- Virtualizing SQL Server;
- Deploying and Upgrading Data-Tier Applications;
- Configure CMS and execute multi-server queries;
- Deploy a data-tier application;
- Register and extract a data-tier application;
- Upgrade a data-tier application.

M3. Part 21: Troubleshooting Common SQL Server 2012 Administrative Issues

- SQL Server Troubleshooting Methodology;
- Resolving Service-related Issues;
- Resolving Concurrency Issues;
- Resolving Login and Connectivity Issues.

Module 4: Implementing Data Warehouse With Microsoft SQL Server 2012

M4. Part 1: Getting Started with Data Warehousing

- Overview of Data Warehousing;
- Data Warehouses and Data Marts
- Data Warehouse Design;
- Considerations for a Data Warehouse Solution;
- Exploring data sources;
- Exploring an ETL solution;
- Exploring a data warehouse.

M4. Part 2: Designing and Implementing a Data Warehouse

- Considerations for Building a Data Warehouse;
- Data Warehouse Reference Architectures and Appliances;
- Logical Design for a Data Warehouse;
- Physical Design for a Data Warehouse;
- Implementing a Star Schema;
- Implementing a Snowflake Schema;
- Implementing a Time Dimension Table.

M4. Part 3: Management Data Warehouse

- System Data Collection Sets;
- Viewing Data Collected by the System Data Collection Sets;
- Creating Your Own Data Collection Set;
- Examining the Data You Collected.

M4. Part 4: Creating an ETL Solution with SSIS

- Introduction to ETL with SSIS;
- Exploring Source Data;
- Implementing Data Flow;
- Exploring Source Data;
- Transferring Data by Using a Data Flow Task;
- Using Transformations in a Data Flow.

M4. Part 5: Implementing Control Flow in an SSIS Package

- Introduction to Control Flow;
- Creating Dynamic Packages;
- Using Containers;
- Managing Consistency;
- Using Tasks and Precedence in a Control Flow;
- Using Variables and Parameters;
- Using Containers;
- Using Transactions;
- Using Checkpoints.

M4. Part 6: Debugging and Troubleshooting SSIS Packages

- Debugging an SSIS Package;
- Logging SSIS Package Events;
- Handling Errors in an SSIS Package;
- Debugging an SSIS Package;
- Logging SSIS Package Execution;
- Implementing an Event Handler;
- Handling Errors in a Data Flow.

M4. Part 7: Implementing an Incremental ETL Process

- Introduction to Incremental ETL;
- Extracting Modified Data;
- Loading Modified Data;
- Using a DateTime Column to Incrementally Extract Data;
- Using a Change Data Capture;
- Using Change Tracking.

M4. Part 8: Using a Lookup Transformation to Insert Dimension Data

- Using a Lookup Transformation to Insert or Update Dimension Data;
- Implementing a Slowly Changing Dimension;
- Using a MERGE Statement to Load Fact Data.

M4. Part 9: Incorporating Data from the Cloud into a Data Warehouse

- Overview of Cloud Data Sources;
- SQL Server Database;
- The Windows Azure Marketplace;
- Creating a SQL Azure Database;

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- Extracting Data from a SQL Azure Database;
- Obtaining Data from the Windows Azure Marketplace.

M4. Part 10: Enforcing Data Quality

- Using Data Quality Services to Cleanse Data;
- Using Data Quality Services to Match Data;
- Creating a DQS Knowledge Base;
- Using a DQS Project to Cleanse Data;
- Using DQS in an SSIS Package;
- Creating a Matching Policy;
- Using a DQS Project to Match Data.

M4. Part 11: Using Master Data Services

- Implementing a Master Data Services Model;
- Using the Master Data Services Add-in for Excel;
- Creating a Basic Model;
- Editing a Model by Using the Master Data Services Add-in for Excel;
- Loading Data into a Model;
- Enforcing Business Rules;
- Consuming Master Data Services Data.

M4. Part 12: Extending SQL Server Integration Services

- Using Custom Components in SSIS;
- Using Scripts in SSIS;
- Using a Custom Component;
- Using a Script Task.

M4. Part 13: Deploying and Configuring SSIS Packages

- Overview of SSIS Deployment;
- Deploying SSIS Projects;
- Planning SSIS Package Execution;
- Create a SSIS Catalog;
- Deploy an SSIS Project;
- Create Environments for an SSIS Solution;
- Running an SSIS Package in SQL Server Management Studio;
- Scheduling SSIS Packages with SQL Server Agent.

M4. Part 14: Consuming Data in a Data Warehouse

- Introduction to Business Intelligence;
- Introduction to Reporting;
- Introduction to Data Analysis;
- Exploring a Reporting Services Report;
- Exploring a PowerPivot Workbook;
- Exploring a Power View Report.

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

Database Querying, Administration and Warehousing, on Microsoft SQL Server 2012: Microsoft Certified Solutions Expert (MCSE) Data Platform Compliant, Leading to Diploma Postgraduate - in Database Querying, Administration and Warehousing on Microsoft SQL Server 2012,5-Credit, 150 Credit-Hours, Accumulating to A Postgraduate Certificate, with 30 additional Credit-Hours, a Postgraduate Diploma, with -210 additional Credit-Hours

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

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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.

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 1st of each month, with the cut-off date being the 20th 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.

Examples of Postgraduate Course Credits: Their Value, Award Prefix & Suffix – Based on 5-Day Multiples		
Credit Value	Credit Hours	Award Title Prefix (& Suffix)
Single-Credit	30-54	Diploma - Postgraduate
Double-Credit	60-84	Diploma – Postgraduate (Double-Credit)
Triple-Credit	90-114	Diploma – Postgraduate (Triple-Credit)
Quad-Credit	120-144	Diploma – Postgraduate (Quad-Credit)
5-Credit	150-174	Diploma – Postgraduate (5-Credit)

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Examples of Postgraduate Course Credits: Their Value, Award Prefix & Suffix – Based on 5-Day Multiples		
Credit Value	Credit Hours	Award Title Prefix (& Suffix)
6-Credit	180-204	Postgraduate Certificate
7-Credit	210-234	Postgraduate Certificate (+ 1 Credit)
8-Credit	240-264	Postgraduate Certificate (+2 Credits)
9-Credit	270-294	Postgraduate Certificate (+3 Credits)
10-Credit	300-324	Postgraduate Certificate (+ 4 Credits)
11-Credit	330-354	Postgraduate Certificate (+5 Credits)
12-Credit	360	Postgraduate Diploma
360 Credit-Hours = Postgraduate Diploma		
12 X 5-Day Courses = 360 Credit-Hours = Postgraduate Diploma		
10 X 6-Day Courses = 360 Credit-Hours = Postgraduate Diploma		


Exemplification of Accumulated Postgraduate Certificate and Postgraduate Diploma Award Titles

All Specialist Postgraduate Certificate and Postgraduate Diploma Programmes have their predetermined Award Titles. Where delegates do not follow a Specialism, for accumulation to a Postgraduate Diploma, they will normally be Awarded a General Award, without any Specialist Award Title. However, a Specialist Award will be given, where a delegate studies at least seventy percent (70%) of his or her courses in a specialist grouping. These are exemplified below:

- 1. Postgraduate Diploma in Accounting and Finance;**
- 2. Postgraduate Certificate in Accounting and Finance;**
- 3. Postgraduate Certificate in Aviation Management;**
- 4. Postgraduate Diploma in Aviation Management;**
- 5. Postgraduate Certificate in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;**

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6. **Postgraduate Diploma in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;**
7. **Postgraduate Certificate in Business Communication;**
8. **Postgraduate Diploma in Business Communication;**
9. **Postgraduate Certificate in Corporate Governance;**
10. **Postgraduate Diploma in Corporate Governance;**
11. **Postgraduate Certificate in Costing and Budgeting;**
12. **Postgraduate Diploma in Costing and Budgeting;**
13. **Postgraduate Certificate in Client or Customer Relations;**
14. **Postgraduate Diploma in Client or Customer Relations;**
15. **Postgraduate Certificate in Engineering and Technical Skills;**
16. **Postgraduate Diploma in Engineering and Technical Skills;**
17. **Postgraduate Certificate in Events Management;**
18. **Postgraduate Diploma in Events Management;**
19. **Postgraduate Certificate in Health and Safety Management;**
20. **Postgraduate Diploma in Health and Safety Management;**
21. **Postgraduate Certificate in Health Care Management;**
22. **Postgraduate Diploma in Health Care Management;**
23. **Postgraduate Certificate in Human Resource Development;**
24. **Postgraduate Diploma in Human Resource Development;**
25. **Postgraduate Certificate in Human Resource Management;**
26. **Postgraduate Diploma in Human Resource Management;**
27. **Postgraduate Certificate in Information and Communications Technology (ICT);**
28. **Postgraduate Diploma in Information and Communications Technology (ICT);**
29. **Postgraduate Certificate in Leadership Skills;**
30. **Postgraduate Diploma in Leadership Skills;**
31. **Postgraduate Certificate in Law – International and National;**

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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;

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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.

Service Contract, incorporating Terms and Conditions

[Click, or copy and paste the URL, below, into your Web Browser, to view our Service Contract, incorporating Terms and Conditions.](https://www.hrodc.com/Service%20Contract%20Terms%20and%20Conditions%20Service%20Details%20Delivery%20Point%20Period%20Cancellations%20Extenuating%20Circumstances%20Payment%20Protocol%20Location.htm)

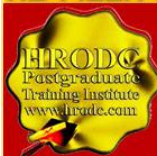
[https://www.hrodc.com/Service Contract Terms and Conditions Service Details Delivery Point Period Cancellations Extenuating Circumstances Payment Protocol Location.htm](https://www.hrodc.com/Service%20Contract%20Terms%20and%20Conditions%20Service%20Details%20Delivery%20Point%20Period%20Cancellations%20Extenuating%20Circumstances%20Payment%20Protocol%20Location.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. Ronald B. Crawford
Director

HRODC Postgraduate Training Institute

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