

# Information Management Fundamentals

## Overview

This course addresses ALL the Information Management disciplines as defined in the International Industry standard, DAMA body of knowledge (DMBoK) v2. Taught by an industry recognized DAMA DMBoK(2.0) author and CDMP<sub>(Fellow)</sub> this course provides a solid foundation of the different disciplines across the complete Information Management spectrum. By attending the course, delegates will get a firm grounding of the core Information Management concepts and illustrate their practical application with real examples of how Information Architecture is applied. Additionally, this course provides a solid foundation for students wishing to take the Industry professional certification the DAMA Certified Data Management Professional (CDMP) and will conclude with taking of the Data Management Fundamentals examination, enabling students to leave this course having attained their CDMP (Associate) certification.

The course is designed and taught by the VP of Professional Development for DAMA International, author of “Data Modelling for the Business” an industry recognized DAMA DMBoK(2.0) author, DAMA CDMP<sub>(Fellow)</sub> Past President of DAMA UK, author and examiner of the professional CDMP certification and recipient of the DAMA Lifetime Achievement Award for Data Management Excellence.

This 3-day course addresses all the Information Management disciplines as defined in the DAMA body of knowledge (DMBoK v2.0) including the “new” discipline of “Data Integration” introduced in DMBoK 2.

## Learning Objectives

This course provides you with the knowledge, methods and techniques required to analyse, mature and implement information management solutions within your organisation. It gives a solid grounding in all the different disciplines of Data Management.

At the end of the course, delegates would have gained the following:

### Level set understanding & terminology:

- Learn about the need for and the application of Information Management disciplines for different categories of challenges
- Explore an Information Management framework and understand how it aligns with other architecture frameworks
- Explore concepts such as lifecycle management, normalisation, dimensional modelling and data virtualisation and appreciate why they are important
- Understand the critical roles of Master Data Management and Data Governance and how to effectively apply them

### Pragmatic Learning

- Understand the different component disciplines that comprise the topic of Information Management

- Learn the different MDM architectures, their suitability for different needs and how best to implement Master Data Management approaches;
- Understand the different facets (dimensions) of Data Quality and explore a workable Data Quality framework;
- Discover the major considerations for successful Data Governance and how it can be introduced in bite-sized pieces;
- Develop a set of usable techniques that can be applied to a range of information management challenges
- Learn the best practices for managing Enterprise Information needs
- Through practical examples, learn how to apply techniques in information architecture planning

### **CDMP Certification**

- Understand the syllabus for the CDMP professional certification
- Revise the key areas for the Data Management Fundamentals examination.

## **Course Outline:**

### **Introduction to Data Management, DMBok & overview of CDMP certification:**

- What is Data Management, the drivers and issues if it goes wrong.
- What is the DMBok, its intended purpose and audience of the DMBok.
- What are the disciplines of Data Management in the DMBok
- Changes in DMBok 2., and the relationship of the DMBok with other frameworks (TOGAF / COBIT etc.).
- The DAMA CDMP professional certification overview and CDMP exam coverage by DMBok 2 section, the different levels and how can you progress through them.

### **Data Governance**

- What is Data Governance and why Data Governance is at the heart of successful Information Management.
- A typical Data Governance reference model including Data Governance roles and responsibilities.
- Organisation structures and types of Operating models to support Data Governance.
- Principles for Data Governance and how to get started with Data Governance.
- The role of the Data Governance Office (DGO) and its relationship with the PMO.
- Data ethics & sampling considerations.

### **Data Quality Management**

- The different facets of Data Quality, and why Validity is often confused with Quality
- The Dimensions of Data Quality.
- The policies, procedures, metrics, technology and resources for ensuring Data Quality is measured and ultimately continually improved.

- A Data Quality reference model & how to apply it.
- Root cause analysis & the “5-whys” approach
- Capabilities & functionality of tools to support Data Quality management.
- Data Quality measures – guidelines for their creation & monitoring.
- Common myths & pitfalls about Data Quality management & how to avoid them.

### Master & Reference Data Management

- The differences between Reference & Master Data.
- Identification and management of Master Data across the enterprise.
- 4 generic Master Data Management architectures & their suitability in different cases.
- A Master Data Management maturity assessment to consider business procedures for Master Data Management and the provision and appropriateness of Master Data Management solutions per major data subject area.
- How to incrementally implement Master Data Management to align with business priorities.
- Genres of Master Data Management solutions & common pitfalls if you select the wrong type;
- Different approaches for Master Data Management implementation & why you must be careful in the approach selected;
- The essential relationship between Master Data Management, Data Quality and Data Governance
- The under looked but critical aspect of Reference Data Management

### Data Warehousing & BI Management & Big Data Analytics

- What is a Data Warehouse & why are they used.
- Provision of Business Intelligence (BI) to the enterprise and the way data consumed by BI solutions and the resulting reports are managed. Particularly important if the data is replicated into a Data Warehouse.
- The major DW architectures (Inmon & Kimball)
- Introduction to Dimensional Data Modelling
- Types of BI, DW, Analytics & Visualisations.
- Data Analytics & Big Data – a brief overview.

### Data Modelling

- What are Data Models & why do we need them.
- Different types of Data models, their use and how they interrelate
- The development, and exploitation of data models, ranging from Enterprise, through Conceptual to Logical, Physical and Dimensional.
- A maturity assessment to consider the way in which models are utilized in the enterprise and their integration in the System Development Life Cycle (SDLC).

- Data modelling & Big Data - why data modelling is NOT just about Relational Database design
- Data Modelling – an essential component of Data Governance

### Metadata Management

- What is (and isn't) Metadata
- Provision of metadata repositories and the means of providing business user access and glossaries from these.
- Types of Metadata & their uses
- Sources of metadata
- Metadata & Business Glossaries. What's the connection?
- The uncomfortable truth about Big Data technologies

### Data Integration & Interoperability

- Data integration & Data interoperability – What's the difference?
- What are the business (and technology) issues that Data Integration is seeking to address?
- Different styles of Data Integration & Interoperability, their applicability and implications.
- The approaches, plans, considerations and guidelines for provision of Data Integration and access.
- Consideration of P2P, ETL, CDC, Hub & Spoke, Service-orientated Architecture (SOA), Data Virtualization and assessment of their suitability for the particular use cases.

### Data Architecture & Data Lifecycle Management

- Types of Architectures
- Enterprise Architecture approaches & Process vs Data interaction.
- Proactive planning for the management of Data across its entire lifecycle from inception through, acquisition, provisioning, exploitation eventually to destruction.
- Considerations for Data across the value chain.
- Differences between Data Life cycle & a Systems Development LifeCycle (SDLC).

### Data Risk Management, Security, Privacy & Regulatory compliance

- Identification of threats and the adoption of defences to prevent unauthorized access, use or loss of data and particularly abuse of personal data.
- Exploration of threat categories, defence mechanisms & approaches, and implications of security & privacy breaches.
- Identification of risks (not just security) to data and its use, together with risk mitigation, controls and reporting.
- Adapting to the changing legal and regulatory requirements related to information and data.

- Assessing the approach to regulatory compliance & understanding the sanctions of non-compliance.
- Data Management considerations for different regulations, e.g. GDPR, BCBS239

### Data Operations Management

- Core roles & considerations for data operations
- Obstacles to performance
- Good Data Operations practices

### Records & Content Management

- Why document & records management is important
- The records management lifecycle
- Audit and records control

### Data Management Tools & Repository

- Examination of the categories of tools supporting the IM disciplines.
- How to select the appropriate toolset.
- Discussion of an example policy for use of specific technology to ensure consistency and interoperability across the enterprise.

## Audience

Practitioners who seek to gain an overview of the different disciplines of Information Management and those seeking Professional recognition and Industry recognised certification for Information Management including:

- Business Intelligence & Data Warehouse developers & architects
- Data Modellers
- Developers
- Data & Enterprise Architects
- Data Analysts
- Solution Architects
- Application Architects
- Information Architects
- Business Analysts
- Database Administrators
- Project / Programme Managers
- IT Consultants
- Data Governance Managers
- Data Quality Managers
- Information Quality Practitioners

## Tutor Biography

Christopher Bradley has spent 40 years in the forefront of the Information Management field, working for International organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehouse and Business Intelligence.

Chris is an Information Strategist and a recognised thought leader. He advises clients including: Alinma Bank, American Express, ANZ, British Gas, Bank of England, BP, Celgene, Cigna Insurance, EDP, Emirates NBD, Enterprise Oil, ExxonMobil, GSK, HSBC, NAB, National Grid, Riyadh Bank, SABB, SAMA, Saudi NIC, Saudi Aramco, Shell, Statoil, and TOTAL.

He is VP of Professional Development for DAMA-International, the inaugural Fellow of DAMA, past president of DAMA UK. He is an author of the DMBok 2.0 and author and examiner for professional certifications. In 2016 Chris received the lifetime achievement award from DAMA International for exceptional services to furthering Data Management education & to the International Data Management community.

Recently he has delivered a comprehensive appraisal of Information Management practices at an Oil & Gas super major, Data Governance strategy for an Energy Utility, and developed an Information Management training program for a Government Organisation.

Chris guides Global organizations on Information Strategy, Data Governance, Information Management best practice and how organisations can genuinely manage Information as a critical corporate asset. Frequently he is engaged to evangelise the Information Management and Data Governance message to Executive management, introduce data governance and new business processes for Information Management and to deliver training and mentoring.

Chris is Director of the E&P standards committee “DMBoard”, sits on several International Data Standards committees, teaches at several Master’s Degree University Classes Internationally. He authored “Data Modelling for the Business”, is a primary author of DMBok 2.0, a member of the Meta Data Professionals Organisation (MPO) and a holder at “Fellow” level of CDMP and examiner for several professional certifications.

Chris is an acknowledged thought leader in Data Governance, author of several papers and books, and an expert judge on the annual Data Governance best practice awards. Email:

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