# IPL Training Courses


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# IPL Training Courses

| Course | Duration |
|---|---|
| 1. Data Modelling Fundamentals | 2 days |
| 2. Data Modelling 101 Basics | ½ day |
| 3. Data Modelling using ER/Studio | 2 days |
| 4. Dimensional Data Modelling | 1 day |
| 5. Data Considerations for Architects and Managers | ½ day |
| 6. ER/Studio V9.0 new features and road map | ½ day |
| 7. Data Modelling for SAP using SAPHIR | ½ day |
| 8. Business Modelling using BPMN | 1 day |

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# About the Courses

IPL's training courses are designed to equip customers with the skills they need to manage information and business processes more effectively. The courses have been presented around the world to enterprise architects and managers in a variety of sectors, including finance, energy, pharmaceuticals and publishing.

The courses are typically delivered at customer sites and can therefore be tailored to meet particular customer needs. Presenters include the respected thought leader Chris Bradley who is IPL's Business Consulting Director.

To discuss prices and availability please contact business.consulting@ipl.com

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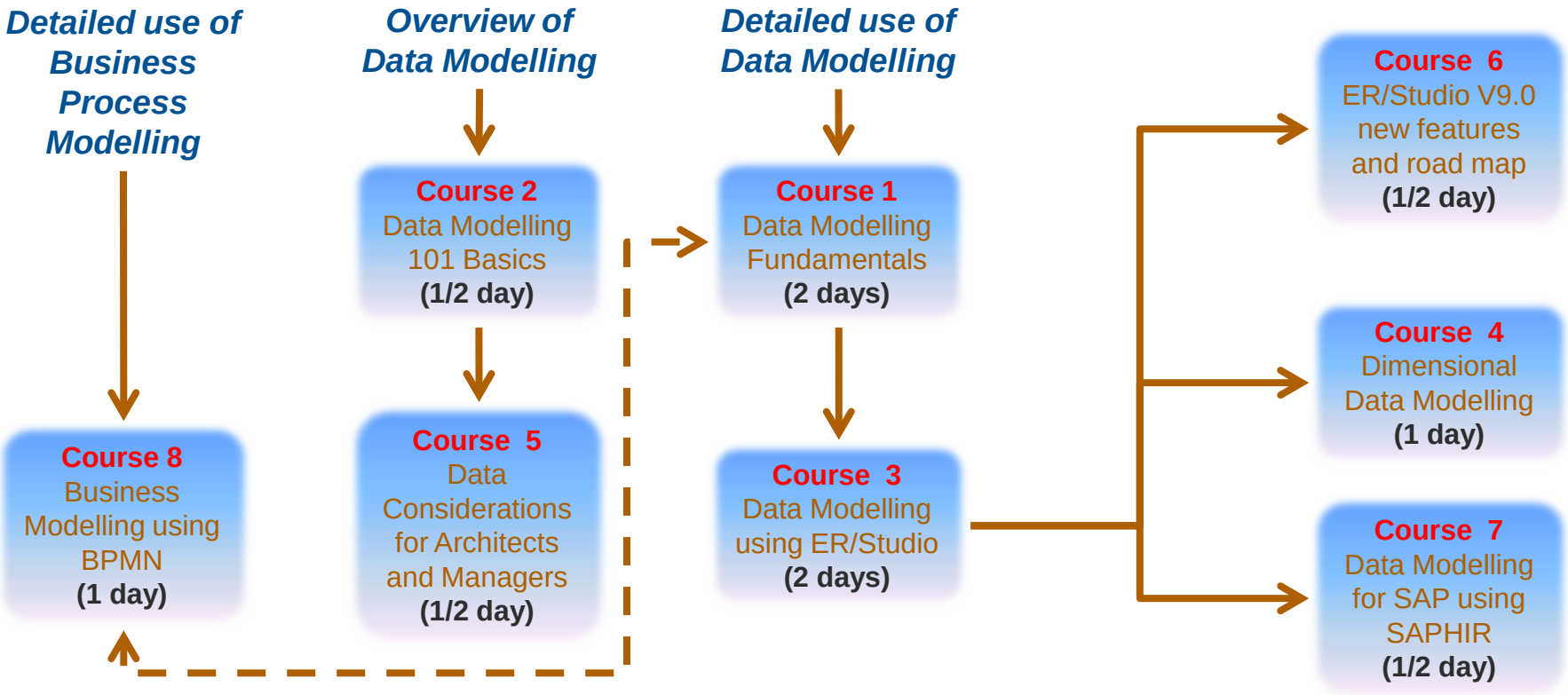
# Typical training requirements and pathways

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# 1. Data modelling fundamentals

**Overview:**

This is an intermediate course for people who wish to learn how to undertake Data Modelling. Typically this will be for Data Architects. This is modelling tool agnostic and does NOT go into any detail on how to use specific modelling tools (such as ER/Studio), although the benefits of modelling tools will be covered.

**Pre-requisites:**

- None

**Duration:**

- 2 days

- What is Data Modelling?
- Why it's not just for Databases anymore (relevant to ERP, SOA, XML, Data Lineage and BI)
- Why is Data Modelling important?
- What resources are available?
- Data Modelling Basics:
- Data vs MetaData
- Normalisation: 1st, 2nd and 3rd normal form and other normal forms
- Main Data Modelling concepts (Entities, Attributes, Relationships, Domains)
- Relationships: Cardinality, Optionality, Identifying / Non-identifying
- Keys: Primary, Natural, Surrogate, Alternate, Inverted, Foreign
- Attribute properties:
- Types and levels of models (, Conceptual, Logical, Physical, Dimensional)
- Entity super types and subtypes
- Data model quality checklist
- Layout
- Basic considerations for transforming LDM into Physical Model

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# 2. Data modelling 101 basics

**Overview:**

This is an introductory course for **anybody** who wants to obtain an **overview** of Data Modelling and learn how to read a data model. Aimed at business users on projects, it does NOT go into detail on how to create data models (see courses # 1 and 4 for this) nor how to use ER/Studio (see courses 3 and 6 for this).

**Pre-requisites:**

- None

**Duration:**

- ½ day

- What is Data Modelling?
- Why it's not just for Databases anymore (relevant to ERP, SOA, XML, Data Lineage and BI)
- Why is Data Modelling important?
- What resources are available?
- Data Modelling Basics:
  - Levels of models (Conceptual, Logical, Physical)
  - Getting started with data modelling
  - The data modelling repository
  - Where to get help

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# 3. Data Modelling using ER/Studio

**Overview:**

This is a **2 day course** teaching how to undertake Data Modelling using ER/Studio. It is NOT a Data modelling fundamentals course (see course # 1 for this) and expects attendees to already have good knowledge of Data Modelling basics. Existing experienced users of ER/Studio should attend Course #3 if they wish only to obtain ER/Studio upgrade features.

**Pre-requisites:**

- Understanding of Data modelling Fundamentals.
- ER/Studio installed on laptop.

**Duration:**

- 2 days

**Day 1**

- Introduction (includes why Data Modelling is important)
- Data Modelling : Overview
- Data Modelling Basics:
- What Is A Logical Data Model (i.e. What - Not How)
- ER/Studio Interface
- The Data Modelling Process in ER/Studio
- MetaWizard – including aligning other tools and ER/Studio, exchanging data artefacts between ER/Studio and other tools.
- Data Modelling Reference Guides
- Data Modelling Process: Central License server and Repository
- Using standard models from a corporate Repository (e.g. Enterprise Data Model, Master Data Models)
- Basic introduction to ER/Studio macros

**Day 2**

- ER/Studio advanced capabilities
- Further repository features (Named Releases, Branch and Merge, Version Control, Multi user project collaboration)
- ER/Studio macros (custom macros + Embarcadero standard Macros)
- Reporting
- Productivity Hints
- Universal Naming Utility
- Reverse Engineering

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# 4. Dimensional Data Modelling

**Overview:**

This is an intermediate course for people who wish to learn how to undertake Dimensional Data Modelling and optionally to utilise ER/Studio. Typically this will be for Data Architects involved in Business Intelligence and Data Warehouse projects.

**Pre-requisites:**

- Understanding of Data modelling Fundamentals.
- ER/Studio installed on laptop.(optional)

**Duration:**

- 1 day

- What is Dimensional Data Modelling?
- Where is Dimensional modelling appropriate?
- What are the differences between Relational and Dimensional models?
- Dimensional model main concepts: Dimensions, Facts, Measures
- ER/Studio Dimensional modelling support (optional)
- Steps for transforming an ER model to a Dimensional model
- Introduction to aggregation, summary and bridge tables
- Introduction to slowly changing Dimensions
- Using dimensional models with SQL Server, SAP/BW, Business Objects and Kalido (e.g. Reverse engineering SAP/BW cubes into Dimensional models)
- Use of company standard conformed dimensions
- Model layout and notation
- Limitations / health warnings surrounding Dimensional models

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# 5. Data Considerations for Architects and Managers

**Overview:**

This is an introductory course for **Project Managers, Solution Architects and IT managers** with no current “in depth” understanding of the Data Architecture processes and tools. It is aimed to give a basic understanding of why data modelling is important, what minimum data considerations need to be included in the project lifecycle, how to get hold of data models, and where to turn to for help.

**Pre-requisites:**

- Basic understanding of Data Modelling or attendance at course # 2 “Data Modelling 101 Basics”

**Duration:**

- ½ day

- What is Data Modelling?
- Why Data modelling is important
- Why it’s not just for Databases anymore (relevant to ERP, SOA, XML, Data Lineage and BI)
- What are the DATA considerations in the various lifecycle stages?
- What are the minimum data deliverables in projects?
- Where to get help from

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# 6. ER/Studio v9.0 new features

**Overview:**

This is a half day course for existing users of ER/Studio covering the new features that have been introduced in versions 8.5 and 9.0.

It is NOT a “how to use ER/Studio” course and expects attendees to already have good knowledge of Data Modelling basics and how to use ER/Studio.

- Visual Data Lineage (VDL)
- LDAP and Active Directory Integration
- Attribute-Level Sub modelling
- Object-Level Compare Flags
- Improved User-Defined Mappings
- New DBMS Support
- License server changes
- Sanctuary Licensing (check out license for offline use)
- ER Studio Reporting Portal
- ER/Studio road map

**Pre-requisites:**

- How to use ER/Studio
- Previous version of ER/Studio installed on laptop

**Duration:**

½ day

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# 7. Using SAPHIR for Data Modelling with SAP

**Overview:**

This is a half day course teaching how to use Saphir to obtain metadata from SAP and how to load it into data modelling tools such as ER/Studio. It is NOT an ER/Studio course and expects attendees to already have good knowledge of Data Modelling basics and how to use ER/Studio.

- Introduction
- Why do data modelling when implementing SAP?
- What is SAPHIR?
- Installing SAPHIR client
- Obtaining SAP metadata from BW and R/3
- Querying the SAPHIR metadata repository
- Using the SAP metadata in ER/Studio models
- Querying the data models repository
- Best practices

**Pre-requisites:**

- How to use ER/Studio
- Saphir installed on laptop
- Basic understanding of SAP

**Duration:**

- ½ day

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# 8. Business process  modelling using BPMN

**Overview:**

This is a one day course teaching the fundamentals of the OMG's Business Process Modelling Notation (BPMN) and the core components and objects within BPMN.  It is not modelling tool specific, although benefits and categories of BPMN modelling tools will be explored.

**Pre-requisites:**

- Basic understanding of Business Process Management.

**Duration:**

- 1 day

The OMG's Business Process Modelling notation, the BPMN, was designed to be intuitive and easy-to-use for to business and non-technical users, while supporting robust and detailed semantics for technical users.

This course will cover the following items:

- BPMN in Context
- Brief History and Core Concepts
- What BPMN is Designed To Do
- BPMN Notation by Example
- More Advanced BPMN Topics
- BPMN Gateways
- Data considerations in the BPMN
- Designing Models For Execution
- More Information

Summary of course:

- BPMN History,  What the BPMN was designed to do (and not do),
- Notation Overview, "Business-Focused" modelling, Overview of the basic modelling artifacts: flows, events, gateways, etc.
- What's new in BPMN 2.0?
  The top 5 new components of BPMN 2.0 will be introduced:
  Improved Event Implementation, "Escalation" user action, New "Business rule" task, XML Schema for model interchange, Non interrupting events.
- Where do we go from here?
  Implementing Business Process Modelling at your site
- Online Resources for broadening your knowledge
- How Process Modelling aligns with other initiatives (Data Modelling, BPM Suites, ERP systems, etc.)
- Summary of BPM tools

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