



**DIGILEAF INC.**

*Leading Excellence Among Fellows*

**Course Outline**

**Enterprise Architecture Learning Track**

## **Application of ArchiMate® 2.1 for TOGAF Requirements** *(Introductory to Advanced Level Combined)*

This course is an integration of foundation to advanced level EA modeling. It covers how to use an enterprise architecture modeling language, ArchiMate® and enables a participant to use appropriate models within TOGAF® ADM. The discussions of the topics of this course are incorporated within TOGAF® 9.1 from conceptual to practical applications. This course includes modeling viewpoints and associated analysis techniques, concepts of requirements management including their relationships to the ArchiMate core concepts. It covers the discussions of a reference method that identifies and structures requirements management activities in relation to the TOGAF ADM phases. It also describes how to apply the concepts for modeling goals, architecture principles, requirements, stakeholders, their concerns, and assessments of these concerns, as well as relationships between these concepts. This course includes the techniques for viewing and analyzing requirements models and tool support for creating and working with these models.

### **Training Objectives**

At the end of the course, the participants will be able to:

1. Create Enterprise Architecture deliverables and artifacts.
2. Use appropriate notations in designing enterprise architecture models within TOGAF® ADM.
3. Model TOGAF ADM outputs using ArchiMate Extensions.
4. Apply techniques in ArchiMate modeling.
5. Present artifacts at each phase of the ADM using ArchiMate viewpoints.

**Duration** 5 day(s)



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## Course Outline

### Enterprise Architecture Learning Track

# Application of ArchiMate® 2.1 for TOGAF Requirements (Introductory to Advanced Level Combined)

## Topics

### Day 1-2

- I. Introduction to ArchiMate
- II. Language Structure
  - a) Core Concepts of the ArchiMate Language
    - i. Active Structure Element
    - ii. Behavioural Element
    - iii. Passive Structure Element
    - iv. Service
    - v. Interface
  - b) Collaboration and Interaction
    - i. Collaboration
    - ii. Interaction
  - c) Relationships
  - d) Layering
  - e) The ArchiMate Framework
- III. Business Layer
  - a) Structural Concepts
  - b) Behavioral Concepts
  - c) Informational Concepts
  - d) Example
- IV. Application Layer
  - a) Structural Concepts
  - b) Behavioral Concepts
- V. Technology Layer
  - a) Structural Concepts
  - b) Behavioral Concepts
  - c) Informational Concepts
  - d) Example
- VI. Relationships and Cross-Layer Dependencies
  - a) Relationships
    - i. Structural Relationships
    - ii. Dynamic Relationships
    - iii. Other Relationships
    - iv. Example
  - b) Cross-Layer Dependencies
    - i. Business-Application Alignment
    - ii. Application-Technology Alignment

*Topics continuation...*

- VII. The Motivation Extension
  - a) Motivation Extension Concepts
- VIII. Introduction to ArchiMate Viewpoints

### Day 3-5

- I. ArchiMate and Requirements Management
- II. Viewpoints and Analysis Techniques
- III. Problem Chains (Way of Thinking)
- IV. Requirements Engineering
- V. Linking Requirements and Architecture
- VI. Distinction Between Principles and Requirements
- VII. Effect of a Principle on the Design Process
- VIII. Motivation and Architecture (Way of Working)
- IX. Relation Between Enterprise Architecture and Requirements Management
- X. Requirements Engineering Cycle
- XI. Application of the Requirements Cycle
- XII. Role of RE Cycle in the Phases of TOGAF ADM
- XIII. Motivation Concepts (Way of Modeling)
- XIV. Modeling the Motivation Aspect
- XV. ArchiMate Techniques and Tools
  - a) Views and Viewpoints
  - b) Techniques for Identifying Completeness of Models
  - c) Techniques to Use in Analyzing Consistency of a Requirements Model