



## Course Outline

### Course Summary

The Unified Modelling Language (UML) is the industry-standard object-oriented (OO) modelling notation. Object-oriented models offer resilience to change, and help to prevent the "ripple effect" where a small change in the business model leads to a disproportionately large change in the software. This course provides a practical yet pragmatic entry into the world of object-oriented analysis for those with a business, rather than technical focus.

UML models are not an end in themselves - their sole purpose is to demonstrate that both the problem and the requirements have been fully understood. Using them allows Business Analysts to integrate their work seamlessly into the Software Development Lifecycle, facilitating communication across the development team. The course promotes this by showing how the models can evolve as a set to a point from which they can be refined into a fully-implemented solution. Supporting this approach is a progressive set of exercises that consolidate the delegates' knowledge of how to use the UML effectively.

Tecademy has been actively involved in OO developments for over fifteen years and this course reflects the most up-to-date thinking and practical experience in the UML.

### Course Style

The course style is very much exercise-based, with a focus on proof-of-learning throughout. Each day starts with a question-and-answer review session, and there are a number of small in-line 'pop quiz' exercises in the individual sessions. There are two 'themed' case studies: one to consolidate each topic as it is covered, and another to consolidate the process as a whole. The process used is based on the Rational Unified Process® (RUP) toolset.

For those groups using a CASE tool such as Rational Rose®, StarUML, MagicDraw or Enterprise Architect, this course can, if required, incorporate sessions giving a practical introduction to the tool. All of the exercises will have suggested solutions worked within the chosen tool.

### Contents include:

**Overview of the UML:** Basic concepts, notation and diagrams;

**The Development Lifecycle:** Iterative and Incremental versus the 'Waterfall' – differences and challenges for the Project Manager;

**Getting Started:** Understanding the problem within the context of the business; architecture-driven development;

**Activity Diagrams:** Modelling Business processes;

**Use Cases:** Identifying Actors and collecting their requirements;  
**Advanced Use Cases:** Analysis and structuring of requirements;  
**The Class Diagram:** Identification of business objects and their relationships;  
**Scenarios and Sequence Diagrams:** detailed modelling of requirements and test cases;  
**Association and Aggregation:** detailed modelling of the collaborations between objects;  
**Generalisation and Specialisation:** using inheritance to get reuse.

All the above topics are illustrated with examples and heuristics drawn from real-world experience.

### **Who Should Attend**

Business analysts or domain experts involved in UML projects; Project Managers; Customer representatives with project involvement.

### **Prerequisites**

Prior exposure to object-oriented concepts is not essential.

### **On Completion, Delegates will be able to:**

**appreciate** the benefits of an object approach and how it is used to leverage business requirements;

**understand** all the important UML models and how they fit together to describe the business requirements;

**know** how to describe business rules using the UML models;

**use** the UML effectively in constructing these models themselves and fitting them together. They will feel confident in doing the same on a real project.

### **Duration:**

5 days.

### **Cost:**

£1050.00 per day for up to 6 delegates inclusive of all materials.

### **Notes:**

Where CASE tool training is included, the client will provide necessary facilities, machines and licenses.

