

## Course 318: Understanding and Using the Rational Unified Process (4 days)

### Course Description...

The Rational Unified Process (RUP) is a disciplined approach to assigning and managing tasks and responsibilities in a development organization. The goal of this process is to produce, within a predictable schedule and budget, high-quality software that meets the needs of its end users. This course provides an in-depth look at RUP and its components and provides workshops and exercises to help the student become conversant in the RUP method.

### Learning Objectives...

- Understand how RUP works and its components, practices and activities
- Show the benefits of using RUP to create higher quality software products
- Apply RUP to the organization's projects, both large and small
- Define the phases, activities and workflows of RUP
- Practice using various of the RUP techniques such as Use Case in real-life situation

### Who should attend...

Audience includes anyone developing software, managing the development of software products, or creating software artifacts.

### Prerequisites...

There are no pre-requisites for this course.

**See next page for a detailed course outline...**



## Course Outline...

### Introduction and Overview

Course Objectives

### Unit 1: The Big Picture

Unit Objectives

- Software development practices
- Characteristics of RUP
  - Iterative and incremental
  - Two perspectives
    - Management perspective
    - Technical perspective
  - Effort and schedule
  - UML
- Use-case driven
  - Identifying use cases
  - Evolving use cases
  - Organizing use cases
- Architecture-centric
  - Importance of models
  - Importance of architecture
- The RUP model
  - Workers
  - Activities
  - Artifacts
  - Workflows
- Developing the project plan
  - Identifying and mitigating risks
  - Assigning and tracking issues
- The business case
- Project acceptance plan
- RUP activities
  - Planning
  - Analysis
  - Architecture
  - Design
  - Implementation
  - Integration
  - Test/Assessment

### Unit 2: Core Workflows

Unit Objectives

- Project management workflow
- Business modeling workflow
- Requirements workflow
- Analysis and design workflow



- Implementation workflow
- Test workflow
- Configuration and change management workflow
- Environment workflow
- Deployment workflow
- Layering strategies

## Unit 3: Phases

### Unit Objectives

- Inception
  - The original product vision
  - Essential activities
  - Entry criteria
  - Use cases
  - Information sets
  - Exit criteria
  - Outcomes
- Elaboration
  - Analyzing the problem domain
  - Essential activities
  - Entry criteria
  - The baseline software architecture
  - Exit criteria
  - Outcomes
- Construction
  - Fleshing out the architecture baseline
  - Essential activities
  - Entry criteria
  - Exit criteria
  - Outcomes
- Transition
  - Moving the solution into use
  - Essential activities
  - Entry criteria
  - Exit criteria
  - Outcomes

## Unit 4: Artifacts

### Unit Objectives

- Requirements Set
- Design Set
- Implementation Set
- Deployment Set
- Management Set

## Unit 5: Workers

### Unit Objectives



- Business Analyst
- Architect
- Designer
- Coder
- Tester

## Unit 6: RUP Characteristics

### Unit Objectives

- Characteristics
  - Use Case Driven
  - Architecture Centric
  - Iterative and Incremental
  - Object Oriented
- Views
  - 4+1
  - Logical View
  - Implementation View
  - Process View
  - Deployment View
  - Use-Case View

## Unit 7: UML Overview

### Unit Objectives

- Use Case Diagram
- Communication Diagram
- Sequence Diagram
- Statemachine
- Activity Diagram
- Interaction Diagram
- Composite Structure Diagram
- Package Diagram
- Object Diagram
- Class Diagram
- Timing Diagram
- Component Diagram
- Deployment Diagram

## Unit 8: Application

- Class Exercise

## Unit 9: Course Summary

Ideas to use

Where to go for more information

***Please contact your ROI representative to discuss course tailoring!!!***