

► ► ► **Module 0**
About This Course



**Mastering Object-Oriented Analysis
and Design with UML**
Module 0: About This Course

Topics

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Introductions

Introductions

- ◆ Your organization
- ◆ Your role
- ◆ Your background, experience
 - Object technology experience
 - Software development experience
 - Implementation language experience
- ◆ Your expectations for this course



Course Objectives

Course Objectives

- ◆ Upon completion of the course, participants will be able to:
 - Apply an iterative, use case-driven, architecture-centric process to the development of a robust design model
 - Use the Unified Modeling Language (UML) to represent the design model
 - Apply Object-Oriented (OO) concepts: abstraction, encapsulation, inheritance, hierarchy, modularity, and polymorphism to the development of a robust design model

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During this course, you will be introduced to the concepts, process, and notation for developing a design model. You will be using the Rational Unified Process Analysis and Design workflow as your framework. These concepts can also be applied within any software development process.

Course Objectives (cont.)

Course Objectives (cont.)

- ◆ Upon completion of the course, participants will be able to:
 - Describe the different views of software architecture, key mechanisms that are defined in support of that architecture, and the effect of the architecture on the produced design
 - Define basic design considerations, including the use of patterns

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The concentration will be on those activities that are performed by the object-oriented designer. Architectural concepts will be introduced and discussed, as they drive the design, but this is not an architecture course.

Intended Audience

Intended Audience

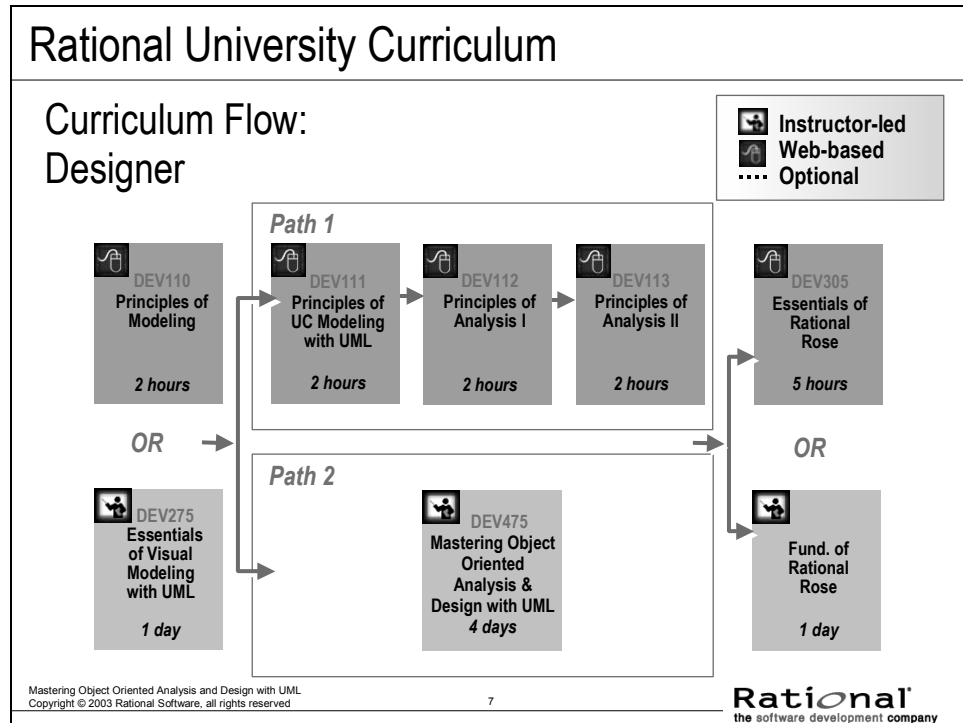
- ◆ Intended Audience
 - Practitioners who want a basic explanation of Object-Oriented Analysis and Design (OOAD) concepts, as well as hands-on practical experience in applying the techniques
 - Analysts, designers, software developers

Prerequisites

Prerequisites

- ♦ Some experience applying the following techniques in a software development environment
 - An exposure to object technology including, how to:
 - Read a use-case model
 - Add classes, objects, associations and how to create simple interaction and class diagrams
 - Find classes and distribute class behavior
 - Distinguish between the UML Analysis class stereotypes: boundary, control, and entity
 - Prerequisites can be achieved through attendance in “Essentials of Visual Modeling with UML” or equivalent experience

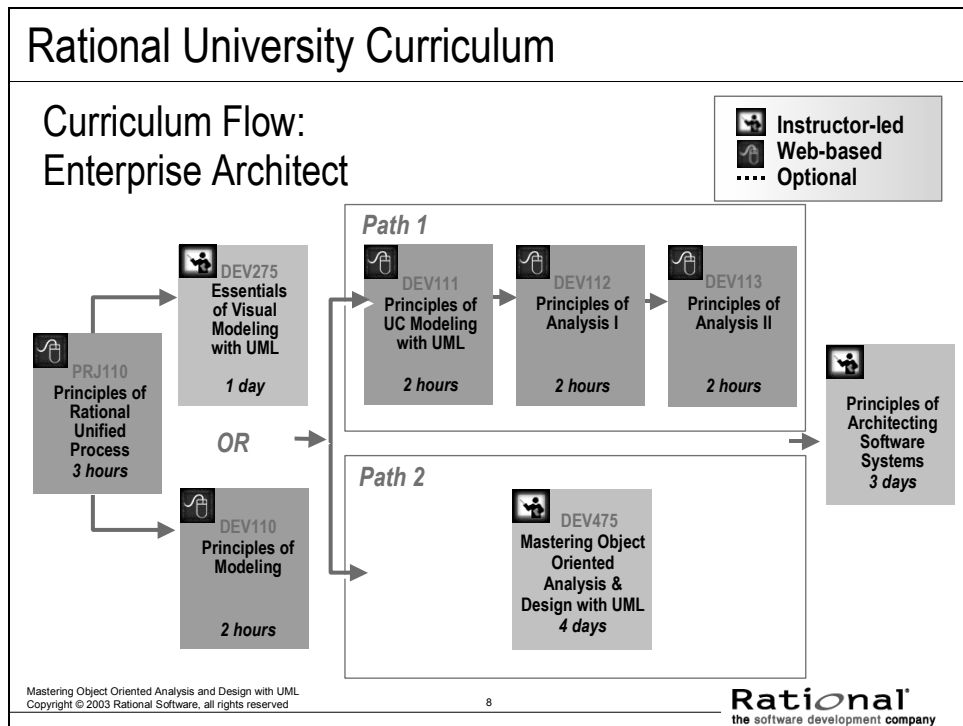
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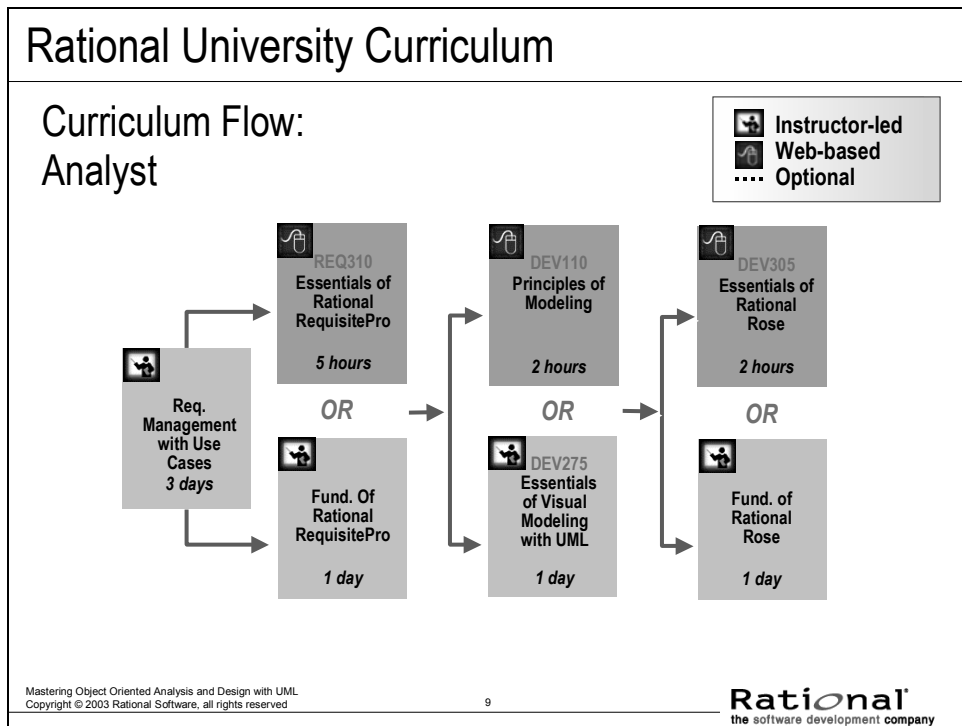
The Rational University curriculum offers the courses shown here and on the next two slides. As you can see, for each major software development team role, Rational University offers a professional development course.

The *Requirements Management with Use Cases* may be particularly interesting to you, as it is where you will learn to develop use cases, the artifacts that drive much of what you do in Analysis and Design.

Rational University Curriculum



Rational University Curriculum



Course Materials

Course Materials

- ◆ Student Manual, Books 1, 2, and 3
- ◆ Additional Information Appendix
- ◆ Course Registration Requirements Document
- ◆ Payroll Requirements Document
- ◆ Payroll Architecture Handbook
- ◆ Payroll Solution Appendix
- ◆ Course Registration Models and Payroll Solutions Models CD
- ◆ *UML User's Guide* by Grady Booch

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The **Student Manual** contains copies of the slides, as well as detailed Student Notes. The Student Manual is comprised of two books.

The **Additional Information Appendix** contains a collection of additional topics that are not general enough to be included in the base course, or may be considered too advanced for the introductory audience. These topics may or may not be covered by the instructor. This appendix contains the *UML-To-Language Maps* that show the map from the UML to implementation language constructs for the following languages: C++, Java, PowerBuilder, and Visual Basic. It also contains information on several additional *Architectural Mechanisms*.

The requirements that drive the development of the example and exercise design models are documented in the **Course Registration Requirements Document** and the **Payroll Requirements Document**, respectively.

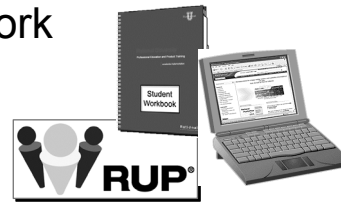
The architectural “givens” that guide the students in the development of the exercise design model are documented in the **Payroll Architecture Handbook**.

The **Payroll Solution Appendix** contains the hard-copy of the course exercise solutions. The Rose models for the course example and course solutions are provided on the **Course Registration Models and Payroll Solutions Models CD**.

Other Sources of Information

Other Sources of Information

- ♦ Student Manual
 - Detailed reference list provided
- ♦ Rational Unified Process
 - www.rational.com/products/rup/index.jsp
- ♦ Rational Web Site
 - www.rational.com
- ♦ Rational Developer Network
 - www.rational.net








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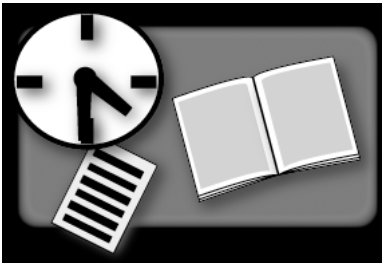
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Logistics

Logistics





Morning
2-Fifteen-minute breaks

Lunch
1 Hour

Afternoon
2-Fifteen-minute breaks

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