► ► ► **Module 0**
About This Course

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IBM Software Group

Mastering Object-Oriented Analysis and Design
with UML 2.0
Module 0: About This Course

Rational. software

Topics

Introductions

Introductions

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

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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 (continued)

Course Objectives (continued)

◆ 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, and system engineers

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Prerequisites

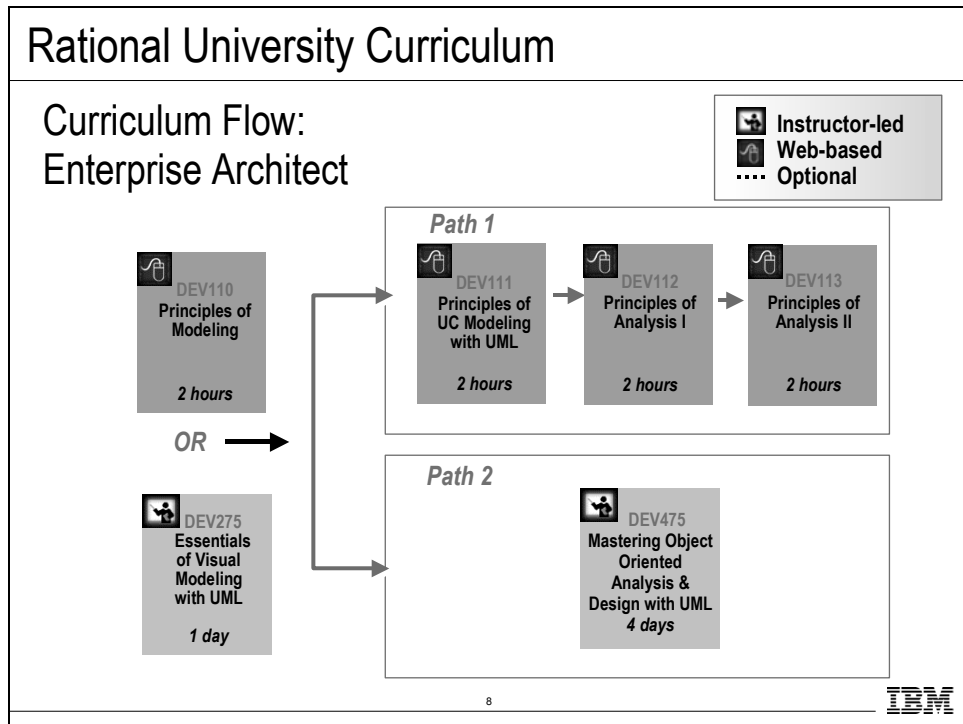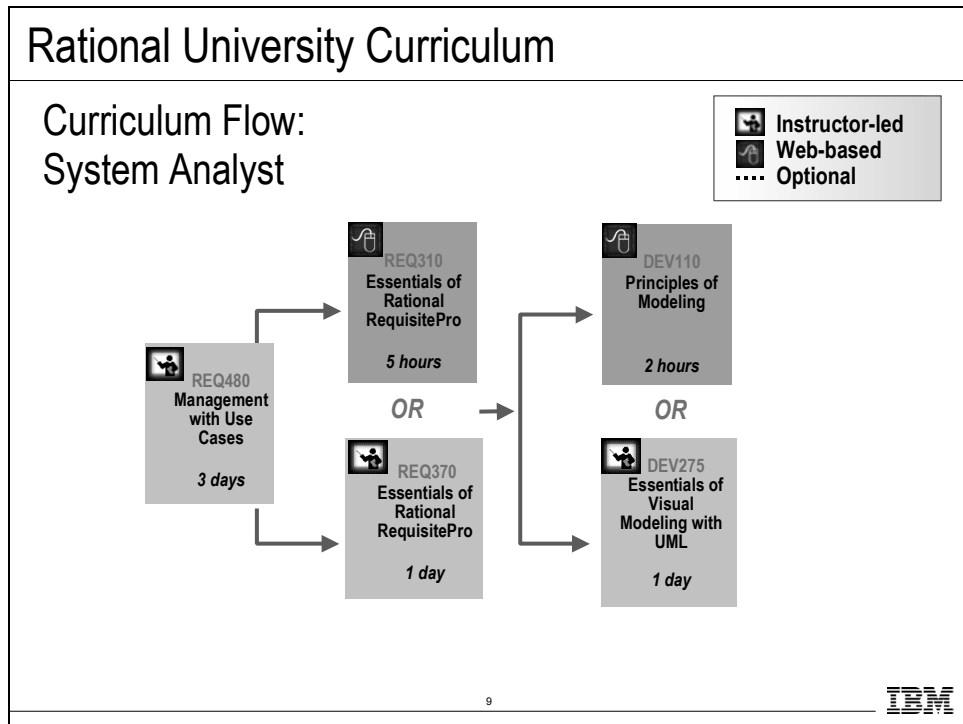| Prerequisites |
| --- |
| ◆ Some experience applying the following techniques in a software development environment

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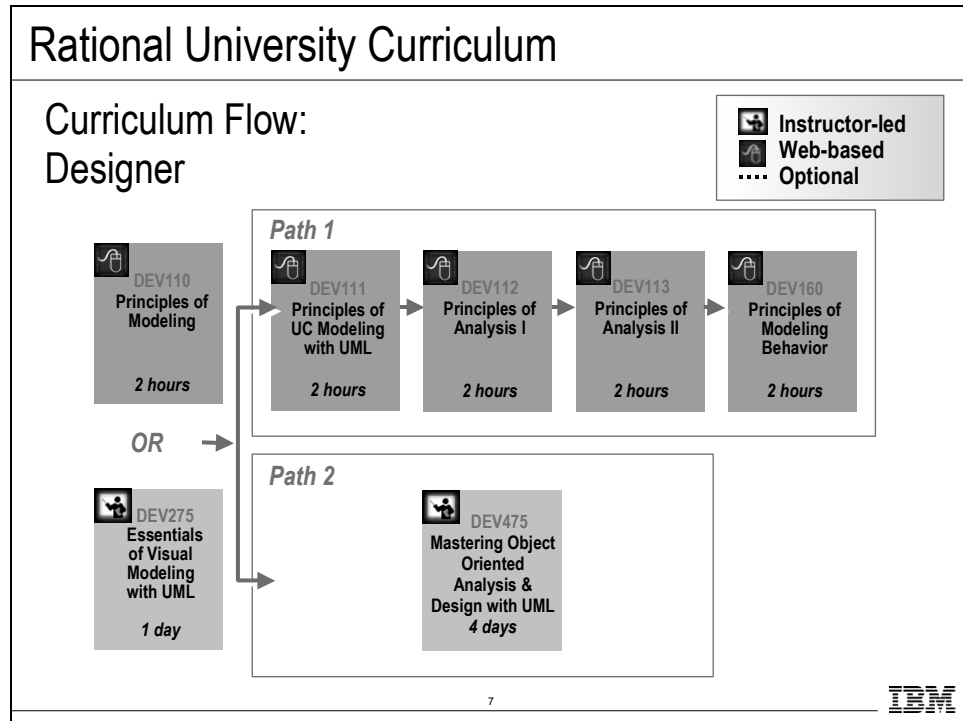
The Rational University curriculum offers the courses shown here and on the next two slides. As you can see, for each major software development team role, Rational University offers a professional development course.

Rational University Curriculum

Rational University Curriculum

Curriculum Flow:
Enterprise Architect

	Instructor-led
	Web-based
....	Optional

Path 1

DEV110
Principles of Modeling

2 hours

DEV111
Principles of UC Modeling with UML

2 hours

DEV112
Principles of Analysis I

2 hours

DEV113
Principles of Analysis II

2 hours

OR

DEV275
Essentials of Visual Modeling with UML

1 day

Path 2

DEV475
Mastering Object Oriented Analysis & Design with UML
4 days

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Rational University Curriculum

Rational University Curriculum

Curriculum Flow:
System Analyst

	Instructor-led
	Web-based
....	Optional

REQ310
**Essentials of
Rational
RequisitePro**

5 hours

DEV110
**Principles of
Modeling**

2 hours

REQ480
**Management
with Use
Cases**

3 days

OR

REQ370
**Essentials of
Rational
RequisitePro**

1 day

OR

DEV275
**Essentials of
Visual
Modeling with
UML**

1 day

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Course Materials

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Course Materials

- ◆ Student Manual, Books 1, 2, and 3
- ◆ Additional Information Appendix
- ◆ Exercise Workbook
- ◆ Payroll Exercise Solution

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The **Student Manual** contains copies of the slides, as well as detailed Student Notes.The Student Manual is comprised of three 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 **Exercise Workbook** is made up of three documents or handbooks. The requirements that drive the development of the example and exercise design models are documented in the **Exercise Workbook**: *Course Registration Requirements* and *Payroll Requirements*, respectively.

The architectural "givens" that guide the students in the development of the exercise design model are documented in the **Exercise Workbook**: *Payroll Architecture Handbook*.

The **Payroll Exercise Solution** contains the hard-copy of the course exercise solutions.

Other Sources of Information

Other Sources of Information

Rational Unified Process

- http://www.ibm.com/developerworks/rational/products/rup
- ◆ Rational Web Site
  - http://www.ibm.com/software/rational/
- ◆ Rational developerWorks
  - http://www.ibm.com/developerworks/
- ◆ Rational Developer Domain
  - http://www.ibm.com/developerworks/rational/

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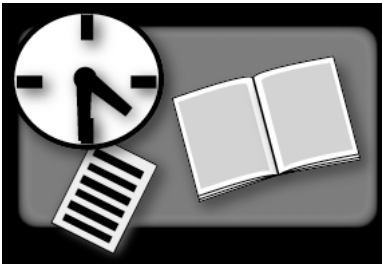

- The Rational Web site provides the latest information on new products, visual modeling and development, events, customer support, documentation and training, to name just a few.
- Rational developerWorks, a **customer-only** site is IBM's resource for developers.

Logistics

Logistics

Morning
2-Fifteen-minute breaks
Lunch
1 Hour
Afternoon
2-Fifteen-minute breaks

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