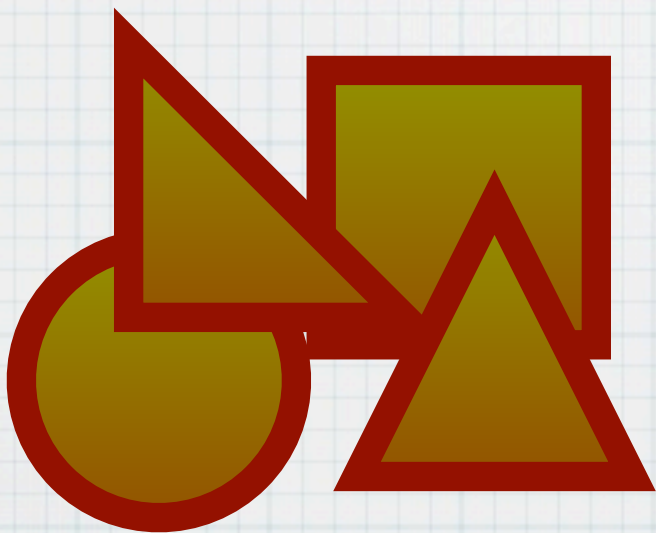# CS630
Object-Oriented
Systems Analysis and Design

Les Waguespack, Ph.D.

Orientation

We Are Here ✓

Course Title: **Object-Oriented Systems Analysis and Design**

Course Description:

This course prepares the student for systems development in the object-oriented paradigm. Students learn the theory and methods of the object-oriented modeling and the fundamentals of object-oriented development process models. The focus is on requirements analysis, systems analysis and domain analysis, and their documentation with standard object-oriented specification tools (particularly the Unified Modeling Language). Hands-on projects give the students an opportunity to practice their modeling skills and illustrate an effective integration of various modeling techniques throughout an iterative, object-oriented software project life cycle.

Prerequisites: **CS 603 and CS 605**

Texts:
UML Distilled, 3rd, Fowler, Addison Wesley; ISBN 0-321-19368-7

All Course Materials may be accessed at **CIS.Bentley.EDU/LWaguespack**

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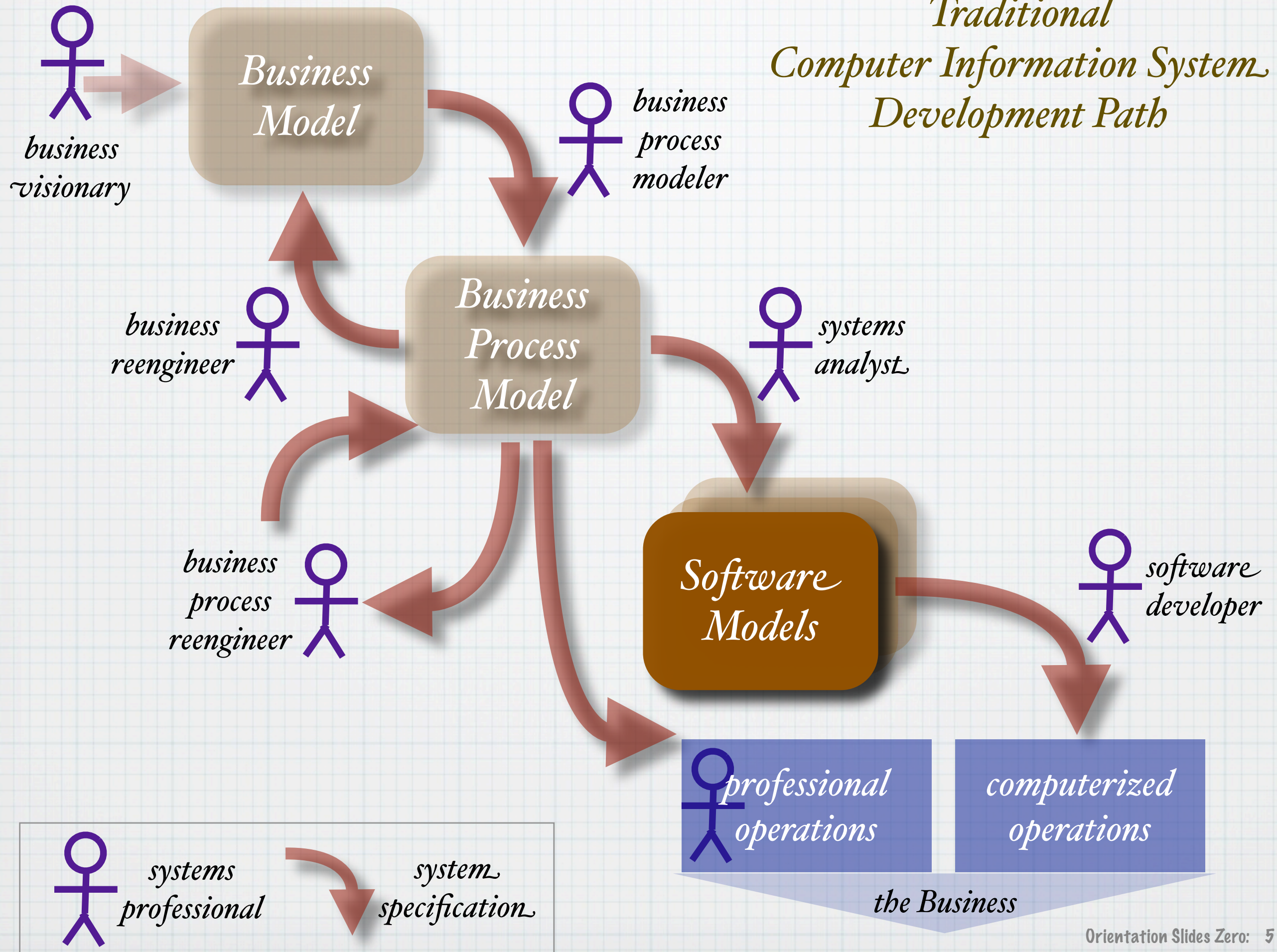**All Course Materials** may be accessed at **CIS.Bentley.EDU/LWaguespack**

What's Not Here!

* You cannot become a fully competent modeler using UML-2 in one semester!

* This is a graduate academic course rather than a training course.

* Modeling in UML-2 is used to explore the OO paradigm to reach understanding.
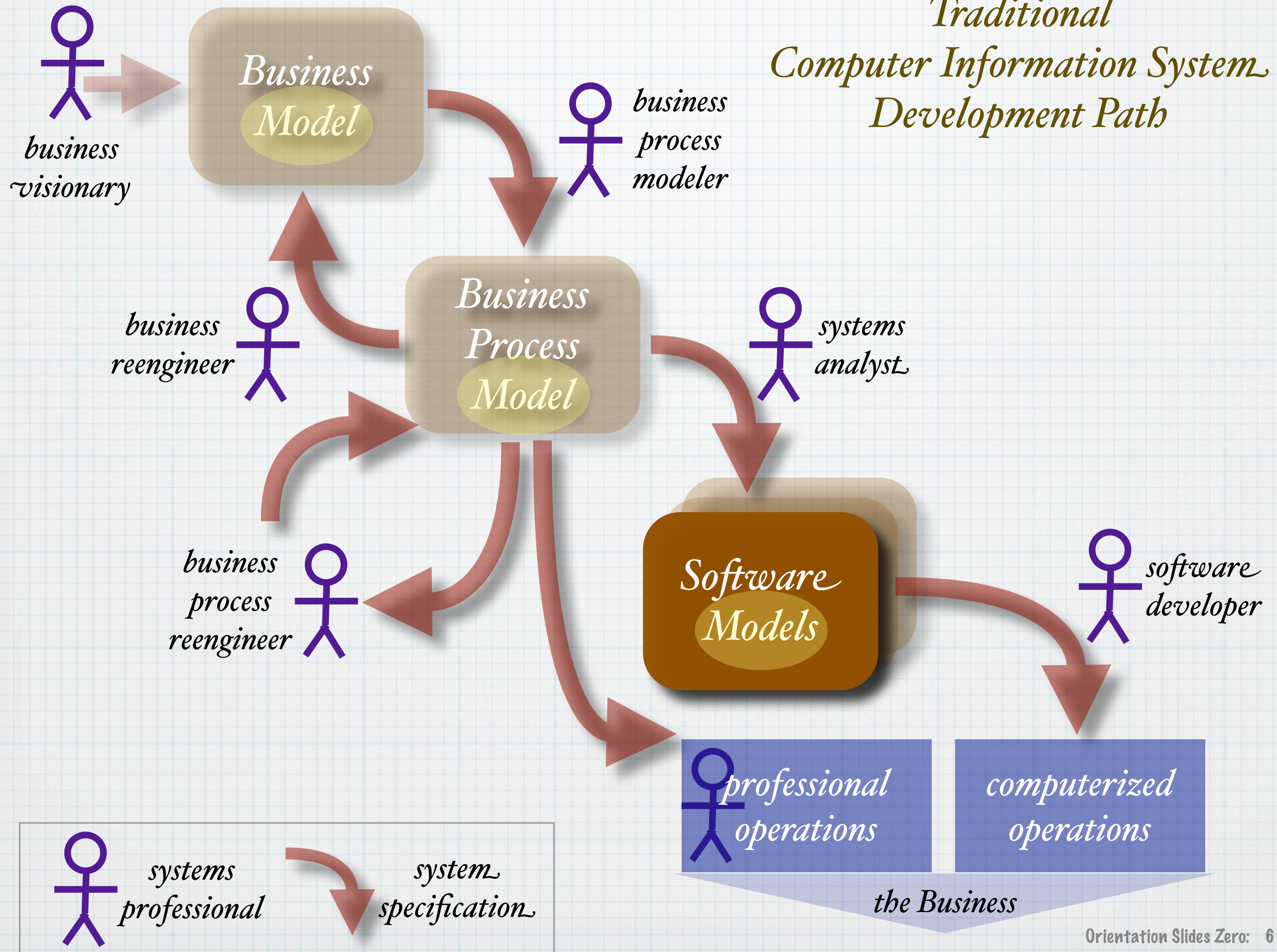
* The focus is on the architect rather than the carpenter!

Traditional
Computer Information System
Development Path

Business Model

business visionary

business process modeler

Business Process Model

business reengineer

systems analyst

business process reengineer

Software Models

software developer

professional operations

computerized operations

the Business

systems professional

system specification

Traditional Computer Information System Development Path

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- computerized operations
- the Business

Legend:
- systems professional
- system specification

Agenda

* **Modeling in UML-2**

  * what is OO modeling and UML-2 as the tool.

* **Requirements Engineering**

  * what needs to be modeled and why?

* **Object-Oriented Database Review**

  * how do OO and ER relate?!

* **Object-Oriented Systems Engineering**

  * why choose to use the OO paradigm for systems?

* **Object-Oriented Systems Design**

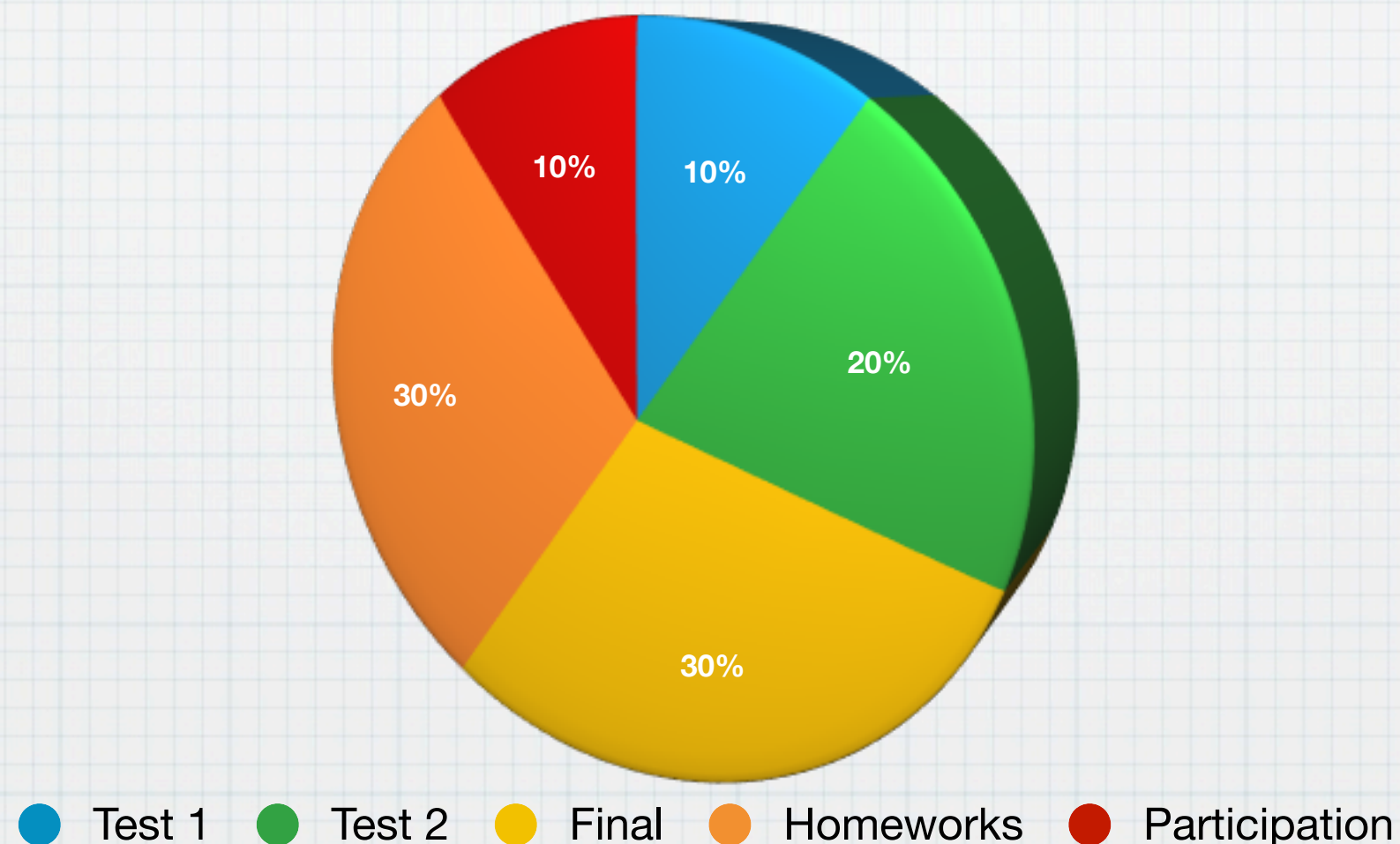 * why do we make any particular modeling choices in designing systems?

Administration

Grading Scale: 100-95:A, 90-94:A-, 87-89:B+, 83-86:B, 80-82:B-, 77-79:C+, <77:F

Grade Component Weights:
Test 1:10%, Test 2:20%, Final: 30%, Homeworks: 30%, Attendance & Participation: 10%

10%   10%

20%

30%

30%

● Test 1   ● Test 2   ● Final   ● Homeworks   ● Participation

Synchronization

* course overheads will be made available 36 hours prior to class via the course website: **cis.bentley.edu/lwaguespack**

* EMail may be sent to **LWaguespack@Bentley.edu**

* include "CS630" in the subject line

* Makeup exams are not possible without prior arrangement

* Absences are assumed to reflect a lack of commitment to the course