

COMP647

# Software Design Methodologies

Lecture 0

Course Overview and Introduction

## **Instructor**

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Lectures & Discussions: Mondays 17:40 – 20:10 H-627

Office Hours: Wednesdays 16:00 – 17:00; at lectures; and by appointment

**Prerequisites:** Software Engineering

## **Information Sources**

Stefano Ceri et al, Designing data-intensive Web applications, Morgan Kaufmann, 2003. QA76.76.A65 D48 2003 Library Reserve

Also [www.webml.org](http://www.webml.org) and [www.webratio.com](http://www.webratio.com)

Frank Budinsky et al, Eclipse modeling framework : a developer's guide, Addison-Wesley, 2004. QA 76.76 D47E295 2004 Library Reserve

Also [www.eclipse.org](http://www.eclipse.org)

Also websites for XML, Java, XRT, UML

National Cancer Institute caLIMS LIMS system documentation

[calims.nci.nih.gov](http://calims.nci.nih.gov)

## Course Outline

### **Broad View**

Model-driven software development

### **More Detailed View**

- Review of background
- Basic system generation from XML
- WebML and WebRatio for data-intensive web sites
- Eclipse Modeling Framework
- More on Eclipse

## Design Assignments

There will be three assignments dealing with a Laboratory Information Management System (LIMS) for the fungal genomics project.

Assignment 1: Use XRT as example of web site generator

Assignment 2: Classical object-oriented documents for requirements analysis and design for your LIMS.

Assignment 2: Modeling design for your LIMS with both EMF and WebRatio.

Each assignment will take about three weeks and be done in teams.

The term paper will require each student to (individually) review their experience with EMF and WebRatio.

### Evaluation

Assignment 1	20%	joint
Assignment 2	20%	joint
Assignment 3	20%	joint
Term Paper	40%	individual
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Total	100%	