Unified Modeling Language & Model Driven Architecture
(IT 352) (3-0-2-4)
Winter Semester 2009-2010

Time Table

Lectures: 3 hrs a week
Labs: 2 hours a week

Instructor
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Teaching Assistant

Course Outline

Object-oriented analysis and design are skills necessary to develop robust, easy to maintain systems. MDA is a standard defined by OMG. Students will learn UML as PIM language and use it to model the software development process within MDA framework. In this course, the students will learn how to capture and communicate user requirements with use cases. During the labs the students will learn to use UML tool (Rational Rose tool) and develop an object-oriented solution for a real life problem using the tool.

Resources

Lecture Schedule

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<tr>
<th>Lectures</th>
<th>Topic</th>
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<tr>
<td>2</td>
<td>Course Overview, Object basics, Object-Oriented Systems Development</td>
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<td>Life Cycle</td>
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<td>4</td>
<td>Requirements Collection, Analysis, Use Cases, UC Diagram</td>
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<td>4</td>
<td>Classes, Objects, Relationships, Attributes and Methods</td>
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<td>6</td>
<td>Modeling Concepts: CRC Card, Class Diagram, Object Diagram, Sequence</td>
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<td>Diagram, Collaboration Diagram</td>
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<td>4</td>
<td>Modeling the System Behaviour: Use Cases, Interaction diagram, State</td>
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<td>Diagram, Activity Diagram</td>
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<td>2</td>
<td>Advanced Modeling Concepts : Packages, Components, Object Constraint</td>
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<tr>
<td></td>
<td>Language (OCL), Case Study</td>
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<td>4</td>
<td>UML, Object-Oriented Analysis and Design Tools</td>
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<td>8</td>
<td>MDA basics, PIM, PSM, UML, Source Code</td>
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<td>5</td>
<td>Research Directions, Student Presentations</td>
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Evaluation Scheme

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<tr>
<th>Evaluation</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Labs and Assignments</td>
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<tr>
<td>Mid Term Test</td>
<td>30%</td>
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<tr>
<td>Comprehensive Exam</td>
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