CS 490MT/5555: Software Methods and Tools

Fall 2015

Last Update: September 10, 2015

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Lectures: Tuesday/Thursday, 2:30pm – 3:45pm. Cockefair Hall, Room 104.
Labs: Flarsheim Hall, Room 460/462.
Office Hour: Thursday, 4pm - 5pm.

Schedule - Course Description - Course Design - Textbook - Grading and Evaluations - Policies

Schedule

Week	Date	Topic	Assignment
1	Aug 25, 2015	Course Introduction	[NoSilverBullet]
	Aug 27, 2015	Software Development Process and Activities	
2	Sep 1, 2015	Lab #1, Sample.gif	Assignment 1
	Sep 3, 2015	UML Modeling I	
3	Sep 8, 2015	Lab #2, OnlineBanking.png	Assignment 2
	Sep 10, 2015	UML Modeling II	
4	Sep 15, 2015	Lab #3	
	Sep 17, 2015	TBD	
5	Sep 22, 2015	IDE and Eclipse	
	Sep 24, 2015	Eclipse Plug-ins I	
6	Sep 29, 2015	Eclipse Plug-ins II	
	Oct 1, 2015	Lab #4	
7	Oct 6, 2015	Software Architecture and Design I	
	Oct 8, 2015	Software Architecture and Design II	
8	Oct 13, 2015	ArchStudio	
	Oct 15, 2015	Lab #5	
9	Oct 20, 2015	Midterm Review	
	Oct 22, 2015	Midterm	
10	Oct 27, 2015	Emacs	
	Oct 29, 2015	Lab #6	

11	Nov 3, 2015	TBD	
	Nov 5, 2015	Testing	
12	Nov 10, 2015	JUnit	
	Nov 12, 2015	Lab #7	
13	Nov 17, 2015	Version Control	
	Nov 19, 2015	Subversion	
14	Nov 24, 2015	Thanksgiving Day (no class)	
	Nov 26, 2015		
15	Dec 1, 2015	Lab #8	
	Dec 3, 2015	GIT	
16	Dec 8, 2015	Lab #9	
	Dec 10, 2015	Course Review	

Course Description

Software methods and tools are extensively used in current software production to improve software productivity and quality. In this course, we are going to learn a number of popular software methods and tools being used in academia or industry. These methods include object-oriented design and analysis, architecture styles, unit testing, and version control. The covered software tools include Microsoft Project, IBM Rational Modeler, Eclipse Plug-ins, Emacs, ArchStudio, JUnit, Subversion, and GIT. The course emphasizes practice, and students will be using these methods and tools to develop a software system, from initial planning to final deployment.

Course Design

A primary goal of this course is to increase students' skills of using software methods and tools as software engineers. The course also helps students further understand the roles that software methods and tools play in software development. The course consists of three parts: lectures, labs, and assignments. Each is briefly described below.

Lectures. Lectures will be given on a regular basis with slides provided. They will be focused on details of the included software methods, and related concepts and background information of the included tools. Class attendance is mandatory, and students are highly encouraged to participate in class discussion.

Labs. There will be nine in-class labs in this course. They are primarily about how to use the included software tools. In each lab, students will use a specific tool to finish a number of tasks, following the tutorials prepared by the instructor. These tasks address the essential parts of the following assignment. The purpose is to get students ready to work on their assignments.

Assignments. The assignments of this course are to develop a software system with the help of the methods and tools students are going to learn. Each assignment covers a specific development phase (e.g. initial planning, requirements analysis, and design), and requires the use of different methods and tools. Students work individually on all the assignments. Each assignment is graded independently.

Textbook

None.

Grading and Evaluations

Midterm: 25%
Final Exam: 25%
Assignments/Labs: 50%

Policies

The UMKC academic honesty policy applies.

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