# Welcome!

# **Today's lecture:**

- Introduction to INF5750
- Practical information
- Introduction to java web development
- Subversion

## Lecturers

Lars Helge Øverland (larshelg) Ola Hodne Titlestad (olati) Jørn Braa (jbraa)

## Lab assistants

Anders Gjendem (andegje) Ole Kristian Hustad (okhustad) Geoffrey Rekier (geoffrer) Torgeir Lorange Østby (torgeilo)

### **Course content**

- Intensive introduction to open source java web development (methods, architectures, tools, and frameworks)

-> Through participation in a real life open source sw development project: HISP

- Global software development

Topics: distributed development, online collaboration, and globallocal tensions. Case studies from the field and practical experiences through project work.

- Open source in commercial software development (guest lecturers)

#### Teaching plan

27.08.2007	Ola Hodne Titlestad and Lars Helge Øverland	Introduction and Subversion
03.09.2007	Lars Helge Øverland	Maven and Spring 1/2
10.09.2007	Lars Helge Øverland	Spring 2/2 and Hibernate 1/2
17.09.2007	Lars Helge Øverland	Hibernate 2/2 and Design Patterns
24.09.2007	Ola Hodne Titlestad	HISP (Health Information Systems Programme)
08.10.2007	Ola Hodne Titlestad	Group assignments and DHIS (District Health Information Software)
15.10.2007	Lars Helge Øverland	DHIS 2
22.10.2007	Guest lecturer: Torgeir Lorange Østby	Web frameworks
29.10.2007	Guest lecturer	Open source frameworks in real-life environments
05.11.2007	Guest lecturer	Global software development

#### (see http://www.uio.no/studier/emner/matnat/ifi/INF5750/h07/undervisningsplan.xml)

## **Evaluation**

2 individual assignments
(August 31, September 21)
3 project assignments (group work)
(Oct 26, Nov 16, Dec 14)
1 individual essay
(Dec 14)

- Pass / not pass

### Every deadline must be met to continue in the course! More information here:

http://www.uio.no/studier/emner/matnat/ifi/INF5750/h07/pensumliste.xml

## Textbooks

## Better, Faster, Lighter Java Justin Gehtland, Bruce A. Tate, 2004. O'Reilly. ISBN: 0-596-00676-4

"Better, Faster, Lighter Java, offers fresh ideas--often unorthodox--to help you rethink the way you work, and techniques and principles you'll use to build simpler applications. You'll learn to spend more time on what's important. When you're finished with this book, you'll find that your Java is better, faster, and lighter than ever before."

Provides a good introduction to the field of open source java development incl. methodologies and specific technologies (Spring and Hibernate). All of you should read this.

## Expert One-on-One J2EE Development without EJB

Rod Johnson, Juergen Hoeller, 2004

- Selected chapters from this book (Ch. 3,6,7,10,13,14)

- Thorough introduction to Spring and the concept of lightweight frameworks

## Alternative references (free):

- Spring in Action sample chapter (a Spring jump start, recommended!) (<u>http://www.manning.com/walls3/sample-ch01.pdf</u>)

- Spring framework documentation (official reference manuals) (http://www.springframework.org/documentation)

- Inversion of Control Containers and the Dependency Injection pattern, Martin Fowler (http://www.martinfowler.com/articles/injection.html)

## Labs

#### Place:

The MMCL lab, research park (FP2) (How to get access?)

### Time:

Group 1 - Monday 12:15-14

Group 2 - Tuesday 12:15-14

Group 3 - Wednesday 12:15-14

Group 4 - Thursday 16:15-18

Open Lab Day (3-4 first weeks) - Thursday 9-16

Approx. 20-25 students per group

Bring your laptop if you have one (only 12 desktops in the lab)

The lab is available outside these hours as well

## **Project work (October 8 – December 14)**

- 3-5 students per group

- Global software development using open source tools and frameworks

- Develop a solution or prototype to be used in a real life open source project

- Interact with HISP developers in Norway, India, Vietnam, Ethiopia ++, and the users in India, Vietnam, Ethiopia, Zanzibar, Sierra Leone, Malawi, Mozambique ++

- 3 assignments. Focus on documentation (requirements, design, future work, developer and user manuals), the code itself, and the use of collaborative tools (Confluence wiki, Trac issue tracker, and subversion for version control.