



COURSE PRESENTATION FORM – ACADEMIC YEAR 2010/2011

COURSE NAME	Advanced Web Systems
COURSE CODE	72031 (MSc 270) / 70215 (BSc and MSc 509) / 70239 (BSc Old)
LECTURER	Adriano Venturini
TEACHING ASSISTANT	--
TEACHING LANGUAGE	English
CREDIT POINTS	4 (MSc 270, MSc 509, BSc) / 6 (BSc Old)
LECTURE HOURS	24
EXERCISE HOURS	12
TIME SPAN	21.02.2011 - 11.06.2011
TIME TABLE	See Timetable Page
OFFICE HOURS LECTURER	During the lecture time span: by appointment via e-mail, Faculty of CS, POS Building, piazza Domenicani 3 , office 2.10
OFFICE HOURS TEACHING ASSISTANT	--
PREREQUISITES	Students attending this course should be familiar with: <ul style="list-style-type: none">• Internet Technologies
OBJECTIVES	<p>Goal of the course is to learn the methodology and the needed competences to design, develop, and deploy web portals satisfying advanced requirements in terms of flexibility, extensibility, availability and scalability.</p> <p>The course will provide the student with in depth knowledge of some typical architectural models and patterns adopted today by the major portal systems deployed on the web by illustrating some of the most used open source technologies, like the Spring framework, the object relational mapping tool Hibernate, and the Liferay portal server.</p>
SYLLABUS	<ul style="list-style-type: none">• Portal Server Architecture (Liferay portal server)• Service architectures with the Spring Framework• Object Relational Mapping (Hibernate)• Model View Controller Pattern (Spring MVC)• JSR 286 Portlet Technologies (Spring Portlet Framework)• Ajax technologies. Remoting Web Services (DWR)
TEACHING FORMAT	The teaching format will include frontal lectures, exercises in the lab, and



projects.

ASSESSMENT

- Oral final exam: 50% of mark
- Project: 50% of mark

The project will consist in the design and implementation of a fully operational dynamic portal application for a JSR 168 Portal Server.

READING LIST

The following books and documents will be adopted as reference reading list:

- Craig Walls with Ryan Breidenbach, Spring in Action, Second Edition (third if it will be available), Manning Publications
- Christian Bauer and Gavin King, Hibernate in Action, Manning Publications
- Building portlet applications,
<http://www.manning.com/walls3/WebXtras.pdf>
- JSR 286: Portlet Specification 2.0,
<http://jcp.org/aboutJava/communityprocess/final/jsr286/index.html>

Relevant papers and tutorials will be available on the course web site.

SOFTWARE USED

- Spring framework
- Hibernate
- Liferay portal server
- Tomcat
- Java SE
- Java EE 5 SDK
- PostgreSQL
- NetBeans

LEARNING OUTCOME

The student will learn to design, develop and deploy complex portal solutions by adopting some of the major open source java software frameworks and technologies typically adopted by the market and by the software industry.

COURSE PAGE

<http://unibz.ectrldev.com/web/aws>