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**This course syllabus is discontinued or replaced by a new course syllabus.**

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## Course Syllabus

Örebro University School of Business

### Informatics, J2EE Web Applications, Intermediate Course, 7.5 Credits

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<b>Course Code:</b>	IK2011	<b>Subject Area:</b>	Field of Technology
<b>Main Field of Study:</b>	Informatics	<b>Credits:</b>	7.5
		<b>Subject Group (SCB):</b>	Informatics/Computer and Systems Sciences
<b>Education Cycle:</b>	First Cycle	<b>Progression:</b>	G1F
<b>Established:</b>	2006-11-07	<b>Last Approved:</b>	2007-09-24
<b>Valid from:</b>	Spring semester 2008	<b>Approved by:</b>	Head of School

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### Aims and Objectives

#### General aims for first cycle education

First-cycle courses and study programmes shall develop:

- the ability of students to make independent and critical assessments
- the ability of students to identify, formulate and solve problems autonomously, and
- the preparedness of students to deal with changes in working life.

In addition to knowledge and skills in their field of study, students shall develop the ability to:

- gather and interpret information at a scholarly level
- stay abreast of the development of knowledge, and
- communicate their knowledge to others, including those who lack specialist knowledge in the field.

(Higher Education Act, Chapter 1, Section 8)

#### Course Objectives

The student should after the course have increased his/her knowledge about:

- development of Internet-based information system based on the J2EE-platform
- JSP
- Servlets
- JDBC
- JAXP
- JavaBeans

The student should after the course with increased independence be able to:

- develop information system based on the J2EE-platform
- implement data exchange between web applications using XML
- analyze and design Internet-based information system architectures

The student should after the course have increased ability to:

- apply JSP, Servlets, JDBC, JAXP, and JavaBeans in systems development projects

### Main Content of the Course

Component based web applications are developed during the course, based on the object oriented perspective.

All web applications are developed using Java and are executed using the Tomcat application server. The course focuses on the following J2EE parts: JSP, Servlets, JDBC, JAXP and JavaBeans.

Differences between Internet based and traditional application architectures are discussed during the course. Architectures are discussed on different levels, both with an internal and external focus. With internal focus means how different web application components are structured and related to each other. The external focus means how different web applications communicate and exchange data with each other. Data exchange between web application is carried out using XML.

## Teaching Methods

Teaching is in the form of lectures, seminars and project tasks.

Students who have been admitted to and registered on a course have the right to receive tuition and/or supervision for the duration of the time period specified for the particular course to which they were accepted (see, the university's admission regulations (in Swedish)). After that, the right to receive tuition and/or supervision expires.

## Examination Methods

*Written Examination*, 7.5 Credits. (Code: 0100)

*Web Project* (Code: 0200)

For further information, see the university's local examination regulations (in Swedish).

## Grades

Unless otherwise prescribed in the course syllabus, a grade is to be awarded on completion of a course. The grade is to be determined by a teacher specifically appointed by the higher education institution (an examiner) (Chapter 6, Section 18, Higher Education Ordinance).

Unless the higher education institution prescribes another grading system, one of the following grades is to be used: fail, pass, or pass with distinction (Chapter 6, Section 19, Higher Education Ordinance).

Grades used on course are Fail (U), Pass (G) or Pass with Distinction (VG).

*Written Examination*

Grades used are Fail (U), Pass (G) or Pass with Distinction (VG).

*Web Project*

Grades used are Fail (U) or Pass (G).

For further information, see the university's local examination regulations (in Swedish).

## Specific entry requirements

Informatics, Database Management, Intermediate Course 7,5 ECTS credits, Informatics, Web Client Programming, Intermediate Course 7,5 ECTS credits and Informatics, OO-programming with Java alternative C# 7,5 ECTS credits.

For further information, see the university's admission regulations (in Swedish).

## Transfer of Credits for Previous Studies

Students who have previously completed higher education or other activities are, in accordance with the Higher Education Ordinance, entitled to have these credited towards the current programme, providing that the previous studies or activities meet certain criteria.

For further information, see the university's local credit transfer regulations (in Swedish).

## Other Provisions

Grades:

Grades used on course are Fail (U), Pass (G) or Pass with Distinction (VG). Grades used for the project work are Fail (U) or Pass (G) and for the written examination Fail (U), Pass (G) or Pass with Distinction (VG).

In order to receive Pass (G) on the course both the written exam and the project work has to be Passed (G). In order to receive Pass with Distinction (VG) the written exam has to be Passed with Distinction (VG) and the project work has to be Passed (G).

Remaining tasks should be completed as soon as possible according to the teachers instructions.

## Reading List and Other Teaching Materials

### Required Reading

Bergsten, Hans (2003)

*JavaServer Pages*

Sebastopol, Calif.: O'Reilly, ISBN/ISSN: 0-596-00563-6, 740 pages

Hall, Marty & Larry Brown 2004/2nd ed.

*Core servlets and JavaServer pages : volume 1: core technologies*

Upper Saddle River, NJ : Prentice Hall PTR, ISBN/ISSN: 0-13-009229-0, 691 pages

Perry, Bruce W. (2004)

*Java servlet and JSP cookbook*

Sebastopol, Calif. ; Farnham : O'Reilly, ISBN/ISSN: 0-596-00572-5, 723 pages