ID2208 Programming Web-Services 7.5 credits

Programmering av Web-tjänster

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ID2208 valid from Autumn 2008

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The course explores Web services from two perspectives:

- as a technology designed for publishing software services to the Internet
- as a general-purpose architecture that triggers a fundamental shift in the way that all distributed systems are created.

The main goal of the course is to give students knowledge about basic methods and techniques in Web services and to provide an insight into current and future directions of the area.

During the course students should learn:

1. What is Web services and Service Oriented Architecture. This means that students should understand what Web services offer as a new and evolving paradigm for building distributed applications

2.What are main Web services standards. This means that students should understand principles of Web service messaging, description and discovery that enable any organization or individual to make its digital assets available.

3.What are basic components of Web services technology that are above the messaging, description and discovery. This means that students should learn about methods of Web service coordination, composition and security and policy as well as dealing with states in Web services.

4. How to utilize semantics in Web services. This means that students should learn about principles of semantic Web services

Course contents

Introduction and basic concepts of Web services. Basics of markup languages and XML. XML messaging (SOAP). Web Service description (WSDL). Web Service discovery (UDDI). WS-Policy description. Web services coordination (WS-Coordination and WS-Transaction). Web Service composition methods (BPEL4WS). Web services security. Semantic Web Services (RDF and OWL-S). Web services and stateful resources. Future trends. Practical part of the course includes exercises and a project involving implementation of Web services

Course literature

Text-book and papers to be provided in the course

Examination

- ANN1 - Assignment, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Written examination (TEN1 4.5hp.)
Homework and project assignment (ANN1 3hp.)

Grading scale: A/B/C/D/E/Fx/F

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.