



IK2001 Security for Java Environment and Electronic Commerce

7.5 credits

Datasäkerhet för Java-miljöer och elektronisk handel

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

Establishment

Course syllabus for IK2001 valid from Spring 2009

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

On successful completion of this course students should:

- Have a deep and comprehensive understanding of:
 - o security features and functionality of the Java programming language and platform.
 - o security issues and security solutions related to electronic commerce transactions.
- Be able to design and implement security related applications in the Java programming language.
- Be able to analyze and evaluate the implementation and functioning of an electronic commerce application and decide on its security properties.

Course contents

The course will study (theoretically and practically) security for Java environments and applications, with special emphasis on security for electronic commerce.

1. Security technologies in Java development/runtime platform
2. Security protocols and architectures for Java applications
3. Secure Electronic Transactions (SET) protocol and EC extensions
4. Smart cards technologies and applications for security and electronic commerce

Disposition

The course will be organized as approx. 7-8 lectures, reading assignments and a programming project.

Course literature

Preliminary:

- Rich Helton, Johennie Helton: Java Security Solutions (Upplaga: Senaste), 0-76454-928-6
- Christopher Steel, Ramesh Nagappan, Ray Lai: Core Security Patterns: Best Practices and Strategies for J2EE, Web Services, and Identity Management, 0-13146-307-1

Examination

- PRO1 - Project, 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.

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

The course examination includes a written exam and a project assignment

Other requirements for final grade

The student needs to pass both the written exam and the project assignment. Final course grade is based on the grade of the exam.

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.