Software Testing

Programme course

6 credits

Programvarutestning

TDDD04

Valid from: 2017 Spring semester

Determined by

Board of Studies for Computer Science
and Media Technology

Date determined

2017-01-25

Main field of study

Information Technology, Computer Science and Engineering, Computer Science

Course level

Second cycle

Advancement level

A1X

Course offered for

- Computer Science and Engineering, M Sc in Engineering
- Information Technology, M Sc in Engineering
- Computer Science and Software Engineering, M Sc in Engineering
- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering
- Computer Science, Master's programme

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites

Programming (Java, C, C++,C#), Data Structures and Algorithms, practical experience in developing complex software.

Intended learning outcomes

After the course, students shall be able to:

- Apply general software testing principles and fundamental test processes
- Describe and apply software test management techniques such as test planning, automated test frameworks and test monitoring.
- Evaluate software testing methods.

Course content

Techniques and concepts for testing software. Topics cover software testing at unit, module and system levels, automatic and manual techniques for generating and validating test data, static and dynamic analysis. Tools and techniques for BDD.

Teaching and working methods

Lectures, lessons and laboratory work

Examination

LAB1	Laboratory work	2 credits	U, G
TEN1	Written examination	4 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Ahmed Rezine

Examiner

Lena Buffoni

Course website and other links

http://www.ida.liu.se/~TDDD04/

Education components

Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature

Additional literature

Books

Copeland, Lee., (2003) *A Practitioner's Guide to Software Test Design*
ISBN: 1-58053-791-X

Websites

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.